

Rec'd PCT/PTO 22 APR 2002

SEQUENCE LISTING

<110> INYCTE PHARMACEUTICALS, INC.

HILLMAN, Jennifer L.

LAL, Preeti

TANG, Y. Tom

CORLEY, Neil C.

GUEGLER, Karl J.

BAUGHN, Mariah R.

PATTERSON, Chandrea

BANDMAN, Olga

AU-YOUNG, Janice

GORGONE, Gina A.

YUE, Henry

AZIMZAI, Yalda

REDDY, Roopa

LU, Dyung Aina M.

SHIH, Leo L.

<120> PHOSPHORYLATION EFFECTORS

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1998-10-14; 1998-11-03; 1998-11-19; 1998-12-22

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| Ile | Val | Thr | Pro | Asp | Cys | Gln | Glu | Lys | Thr | Ser | Pro | Lys | Gly | Val |
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| Pro | Leu | Glu | Val | Leu | Lys | Thr | Leu | Ala | Ser | Lys | Arg | Asn | Ala | Val |
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| Glu | Pro | Ser | Arg | Met | Asn | Met | Thr | Ser | Leu | Asp | Ala | Met | Asp | Ile | |
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| Ser | Cys | Ala | Tyr | Ser | Gly | Ser | Tyr | Pro | Met | Ala | Ile | Thr | Pro | Thr | |
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| Gln | Lys | Arg | Arg | Ser | Cys | Met | Pro | His | Gln | Thr | Pro | Asn | Gln | Ile | |
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| Lys | Ser | Gly | Thr | Pro | Tyr | Arg | Thr | Pro | Lys | Ser | Val | Arg | Arg | Gly | |
| | | | | 140 | | | | | 145 | | | | | 150 | |
| Val | Ala | Pro | Val | Asp | Asp | Gly | Arg | Ile | Leu | Gly | Thr | Pro | Asp | Tyr | |
| | | | | 155 | | | | | 160 | | | | | 165 | |
| Leu | Ala | Pro | Glu | Leu | Leu | Leu | Gly | Arg | Ala | His | Gly | Pro | Ala | Val | |
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| Asp | Trp | Trp | Ala | Leu | Gly | Val | Cys | Leu | Phe | Glu | Phe | Leu | Thr | Gly | |
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| Ile | Pro | Pro | Phe | Asn | Asp | Glu | Thr | Pro | Gln | Gln | Val | Phe | Gln | Asn | |
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| Ile | Leu | Lys | Arg | Asp | Ile | Pro | Trp | Pro | Glu | Gly | Glu | Glu | Lys | Leu | |
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| Ser | Asp | Asn | Ala | Gln | Ser | Ala | Val | Glu | Ile | Leu | Leu | Thr | Ile | Asp | |
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| Asp | Thr | Lys | Arg | Ala | Gly | Met | Lys | Glu | Leu | Lys | Arg | His | Pro | Leu | |
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| Phe | Ser | Asp | Val | Asp | Trp | Glu | Asn | Leu | Gln | His | Gln | Thr | Met | Pro | |
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| Phe | Ile | Pro | Gln | Pro | Asp | Asp | Glu | Thr | Asp | Thr | Ser | Tyr | Phe | Glu | |
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| Ser | Pro | Ser | Arg | Ala | Arg | Gly | Pro | Gly | Gly | Ser | Pro | Gly | Gly | Met | |
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| Gln | Lys | Arg | His | Ala | Arg | Val | Thr | Val | Lys | Tyr | Asp | Arg | Arg | Glu | |
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| Leu | Gln | Arg | Arg | Leu | Asp | Val | Glu | Lys | Trp | Ile | Asp | Gly | Arg | Leu | |
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| Glu | Glu | Leu | Tyr | Arg | Gly | Met | Glu | Ala | Asp | Met | Pro | Asp | Glu | Ile | |
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| Asn | Ile | Asp | Glu | Leu | Leu | Glu | Leu | Glu | Ser | Glu | Glu | Glu | Arg | Ser | |
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| Arg | Lys | Ile | Gln | Gly | Leu | Leu | Lys | Ser | Cys | Gly | Lys | Pro | Val | Glu | |
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| Asp | Phe | Ile | Gln | Glu | Leu | Leu | Ala | Lys | Leu | Gln | Gly | Leu | His | Arg |
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| Gln | Pro | Gly | Leu | Arg | Gln | Pro | Ser | Pro | Ser | His | Asp | Gly | Ser | Leu |
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| Leu | Lys | Ala | Asp | Pro | Glu | Glu | Leu | Phe | Thr | Lys | Leu | Glu | Lys | Ile |
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| Gly | Lys | Gly | Ser | Phe | Gly | Glu | Val | Phe | Lys | Gly | Ile | Asp | Asn | Arg |
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| Thr | Gln | Lys | Val | Val | Ala | Ile | Lys | Ile | Ile | Asp | Leu | Glu | Glu | Ala |
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| Glu | Asp | Glu | Ile | Glu | Asp | Ile | Gln | Gln | Glu | Ile | Thr | Val | Leu | Ser |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Gln | Cys | Asp | Ser | Pro | Tyr | Val | Thr | Lys | Tyr | Tyr | Gly | Ser | Tyr | Leu |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Lys | Asp | Thr | Lys | Leu | Trp | Ile | Ile | Met | Glu | Tyr | Leu | Gly | Gly | Gly |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Ser | Ala | Leu | Asp | Leu | Leu | Glu | Pro | Gly | Arg | Leu | Asp | Glu | Thr | Gln |
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| Ile | Ala | Thr | Ile | Leu | Arg | Glu | Ile | Leu | Lys | Gly | Leu | Asp | Tyr | Leu |
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| His | Ser | Glu | Lys | Lys | Ile | His | Arg | Asp | Ile | Lys | Ala | Ala | Asn | Val |
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| Leu | Leu | Ser | Glu | His | Gly | Glu | Val | Lys | Leu | Ala | Asp | Phe | Gly | Val |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Ala | Gly | Gln | Leu | Thr | Asp | Thr | Gln | Ile | Lys | Arg | Asn | Thr | Phe | Val |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Gly | Thr | Pro | Phe | Trp | Met | Ala | Pro | Glu | Val | Ile | Lys | Gln | Ser | Ala |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Tyr | Asp | Ser | Lys | Ala | Asp | Ile | Trp | Ser | Leu | Gly | Ile | Thr | Ala | Ile |
| | | | | 200 | | | | | 205 | | | | | 210 |
| Glu | Leu | Ala | Arg | Gly | Glu | Pro | Pro | His | Ser | Glu | Leu | His | Pro | Met |
| | | | | 215 | | | | | 220 | | | | | 225 |
| Lys | Val | Leu | Phe | Leu | Ile | Pro | Lys | Asn | Asn | Pro | Pro | Thr | Leu | Glu |
| | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Asn | Tyr | Ser | Lys | Pro | Leu | Lys | Glu | Phe | Val | Glu | Ala | Cys | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Asn | Lys | Glu | Pro | Ser | Phe | Arg | Pro | Thr | Ala | Lys | Glu | Leu | Leu | Lys |
| | | | | 260 | | | | | 265 | | | | | 270 |
| His | Lys | Phe | Ile | Leu | Arg | Asn | Ala | Lys | Lys | Thr | Ser | Tyr | Leu | Thr |
| | | | | 275 | | | | | 280 | | | | | 285 |

| | | | | | | | | | | | | | | | |
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| Glu | Leu | Ile | Asp | Arg | Tyr | Lys | Arg | Trp | Lys | Ala | Glu | Gln | Ser | His | |
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| Asp | Asp | Ser | Ser | Ser | Glu | Asp | Ser | Asp | Ala | Glu | Thr | Asp | Gly | Gln | |
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| Ala | Ser | Gly | Gly | Ser | Asp | Ser | Gly | Asp | Trp | Ile | Phe | Thr | Ile | Arg | |
| | | | | 320 | | | | | 325 | | | | | 330 | |
| Glu | Lys | Asp | Pro | Lys | Asn | Leu | Glu | Asn | Gly | Ala | Leu | Gln | Pro | Ser | |
| | | | | 335 | | | | | 340 | | | | | 345 | |
| Asp | Leu | Asp | Arg | Asn | Lys | Met | Lys | Asp | Ile | Pro | Lys | Arg | Pro | Phe | |
| | | | | 350 | | | | | 355 | | | | | 360 | |
| Ser | Gln | Cys | Leu | Ser | Thr | Ile | Ile | Ser | Pro | Leu | Phe | Ala | Glu | Leu | |
| | | | | 365 | | | | | 370 | | | | | 375 | |
| Lys | Glu | Lys | Ser | Gln | Ala | Cys | Gly | Gly | Asn | Leu | Gly | Ser | Ile | Glu | |
| | | | | 380 | | | | | 385 | | | | | 390 | |
| Glu | Leu | Arg | Gly | Ala | Ile | Tyr | Leu | Ala | Glu | Glu | Ala | Cys | Pro | Gly | |
| | | | | 395 | | | | | 400 | | | | | 405 | |
| Ile | Ser | Asp | Thr | Met | Val | Ala | Gln | Leu | Val | Gln | Arg | Leu | Gln | Arg | |
| | | | | 410 | | | | | 415 | | | | | 420 | |
| Tyr | Ser | Leu | Ser | Gly | Gly | Gly | Thr | Ser | Ser | His | | | | | |
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<223> Incyte Clone Number: 2594943

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Val | Glu | Glu | Ala | Met | Leu | Ala | Val | Leu | His | Thr | Val | Leu | Leu | |
| | | | | 20 | | | | | 25 | | | | | 30 | |
| His | Arg | Ser | Thr | Gly | Lys | Phe | His | Tyr | Lys | Lys | Glu | Gly | Thr | Tyr | |
| | | | | 35 | | | | | 40 | | | | | 45 | |
| Ser | Ile | Gly | Thr | Val | Gly | Thr | Gln | Asp | Val | Asp | Cys | Asp | Phe | Ile | |
| | | | | 50 | | | | | 55 | | | | | 60 | |
| Asp | Phe | Thr | Tyr | Val | Arg | Val | Ser | Ser | Glu | Glu | Leu | Asp | Arg | Ala | |
| | | | | 65 | | | | | 70 | | | | | 75 | |
| Leu | Arg | Lys | Val | Val | Gly | Glu | Phe | Lys | Asp | Ala | Leu | Arg | Asn | Ser | |
| | | | | 80 | | | | | 85 | | | | | 90 | |
| Gly | Gly | Asp | Gly | Leu | Gly | Gln | Met | Ser | Leu | Glu | Phe | Tyr | Gln | Lys | |
| | | | | 95 | | | | | 100 | | | | | 105 | |
| Lys | Lys | Ser | Arg | Trp | Pro | Phe | Ser | Asp | Glu | Cys | Ile | Pro | Trp | Glu | |
| | | | | 110 | | | | | 115 | | | | | 120 | |
| Val | Trp | Thr | Val | Lys | Val | His | Val | Val | Ala | Leu | Ala | Thr | Glu | Gln | |
| | | | | 125 | | | | | 130 | | | | | 135 | |
| Glu | Arg | Gln | Ile | Cys | Arg | Glu | Lys | Val | Gly | Glu | Lys | Leu | Cys | Glu | |
| | | | | 140 | | | | | 145 | | | | | 150 | |
| Lys | Ile | Ile | Asn | Ile | Val | Glu | Val | Met | Asn | Arg | His | Glu | Tyr | Leu | |
| | | | | 155 | | | | | 160 | | | | | 165 | |
| Pro | Lys | Met | Pro | Thr | Gln | Ser | Glu | Val | Asp | Asn | Val | Phe | Asp | Thr | |
| | | | | 170 | | | | | 175 | | | | | 180 | |

Gly Leu Arg Asp Val Gln Pro Tyr Leu Tyr Lys Ile Ser Phe Gln
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 Ile Thr Asp Ala Leu Gly Thr Ser Val Thr Thr Thr Met Arg Arg
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 35 40 45
 Gln Leu Gly Pro Leu Gly Arg Asp Pro Pro Gln Glu Cys Ser Thr
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 Phe Ser Pro Thr Asp Ser Gly Glu Glu Pro Gly Gln Leu Ser Pro
 65 70 75
 Gly Val Gln Phe Gln Arg Arg Gln Asn Gln Arg Arg Phe Ser Met
 80 85 90
 Glu Asp Val Ser Lys Arg Leu Ser Leu Pro Met Asp Ile Arg Leu
 95 100 105
 Pro Gln Glu Phe Leu Gln Lys Leu Gln Met Glu Ser Pro Asp Leu
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 Pro Lys Pro Leu Ser Arg Met Ser Arg Arg Ala Ser Leu Ser Asp
 125 130 135
 Ile Gly Phe Gly Lys Leu Glu Thr Tyr Val Lys Leu Asp Lys Leu
 140 145 150
 Gly Glu Gly Thr Tyr Ala Thr Val Phe Lys Gly Arg Ser Lys Leu
 155 160 165
 Thr Glu Asn Leu Val Ala Leu Lys Glu Ile Arg Leu Glu His Glu
 170 175 180
 Glu Gly Ala Pro Cys Thr Ala Ile Arg Glu Val Ser Leu Leu Lys
 185 190 195
 Asn Leu Lys His Ala Asn Ile Val Thr Leu His Asp Leu Ile His
 200 205 210
 Thr Asp Arg Ser Leu Thr Leu Val Phe Glu Tyr Leu Asp Ser Asp
 215 220 225
 Leu Lys Gln Tyr Leu Asp His Cys Gly Asn Leu Met Ser Met His
 230 235 240
 Asn Val Lys Ile Phe Met Phe Gln Leu Leu Arg Gly Leu Ala Tyr
 245 250 255
 Cys His His Arg Lys Ile Leu His Arg Asp Leu Lys Pro Gln Asn
 260 265 270
 Leu Leu Ile Asn Glu Arg Gly Glu Leu Lys Leu Ala Asp Phe Gly
 275 280 285

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Arg | Ala | Lys | Ser | Val | Pro | Thr | Lys | Thr | Tyr | Ser | Asn | Glu | 290 | 295 | 300 |
| Val | Val | Thr | Leu | Trp | Tyr | Arg | Pro | Pro | Asp | Val | Leu | Leu | Gly | Ser | 305 | 310 | 315 |
| Thr | Glu | Tyr | Ser | Thr | Pro | Ile | Asp | Met | Trp | Gly | Val | Gly | Cys | Ile | 320 | 325 | 330 |
| His | Tyr | Glu | Met | Ala | Thr | Gly | Arg | Pro | Leu | Phe | Pro | Gly | Ser | Thr | 335 | 340 | 345 |
| Val | Lys | Glu | Glu | Leu | His | Leu | Ile | Phe | Arg | Leu | Leu | Gly | Thr | Pro | 350 | 355 | 360 |
| Thr | Glu | Glu | Thr | Trp | Pro | Gly | Val | Thr | Ala | Phe | Ser | Glu | Phe | Arg | 365 | 370 | 375 |
| Thr | Tyr | Ser | Phe | Pro | Cys | Tyr | Leu | Pro | Gln | Pro | Leu | Ile | Asn | His | 380 | 385 | 390 |
| Ala | Pro | Arg | Leu | Asp | Thr | Asp | Gly | Ile | His | Leu | Leu | Ser | Ser | Leu | 395 | 400 | 405 |
| Leu | Leu | Tyr | Glu | Ser | Lys | Ser | Arg | Met | Ser | Ala | Glu | Ala | Ala | Leu | 410 | 415 | 420 |
| Ser | His | Ser | Tyr | Phe | Arg | Ser | Leu | Gly | Glu | Arg | Val | His | Gln | Leu | 425 | 430 | 435 |
| Glu | Asp | Thr | Ala | Ser | Ile | Phe | Ser | Leu | Lys | Glu | Ile | Gln | Leu | Gln | 440 | 445 | 450 |
| Lys | Asp | Pro | Gly | Tyr | Arg | Gly | Leu | Ala | Phe | Gln | Gln | Pro | Gly | Arg | 455 | 460 | 465 |
| Gly | Lys | Asn | Arg | Arg | Gln | Ser | Ile | Phe | | | | | | | 470 | | |

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| Met | Asn | Gly | Glu | Ala | Ile | Cys | Ser | Ala | Leu | Pro | Thr | Ile | Pro | Tyr | 1 | 5 | 10 | 15 |
| His | Lys | Leu | Ala | Asp | Leu | Arg | Tyr | Leu | Ser | Arg | Gly | Ala | Ser | Gly | 20 | 25 | 30 | 35 |
| Thr | Val | Ser | Ser | Ala | Arg | His | Ala | Asp | Trp | Arg | Val | Gln | Val | Ala | 35 | 40 | 45 | 50 |
| Val | Lys | His | Leu | His | Ile | His | Thr | Pro | Leu | Leu | Asp | Ser | Glu | Arg | 55 | 60 | 65 | 70 |
| Lys | Asp | Val | Leu | Arg | Glu | Ala | Glu | Ile | Leu | His | Lys | Ala | Arg | Phe | 75 | 80 | 85 | 90 |
| Ser | Tyr | Ile | Leu | Pro | Ile | Leu | Gly | Ile | Cys | Asn | Glu | Pro | Glu | Phe | 95 | 100 | 105 | 110 |
| Leu | Gly | Ile | Val | Thr | Glu | Tyr | Met | Pro | Asn | Gly | Ser | Leu | Asn | Glu | 115 | 120 | 125 | 130 |
| Leu | Leu | His | Arg | Lys | Thr | Glu | Tyr | Pro | Asp | Val | Ala | Trp | Pro | Leu | 135 | 140 | 145 | 150 |
| Arg | Phe | Arg | Ile | Leu | His | Glu | Ile | Ala | Leu | Gly | Val | Asn | Tyr | Leu | 155 | 160 | 165 | 170 |

| | | | | | |
|-----------------|---------------------|---------------------|-----|--|-----|
| | 125 | | 130 | | 135 |
| His Asn Met Thr | Pro Pro Leu Leu His | His Asp Leu Lys Thr | Gln | | |
| | 140 | | 145 | | 150 |
| Asn Ile Leu Leu | Asp Asn Glu Phe His | Val Lys Ile Ala Asp | Phe | | |
| | 155 | | 160 | | 165 |
| Gly Leu Ser Lys | Trp Arg Met Met Ser | Leu Ser Gln Ser Arg | Ser | | |
| | 170 | | 175 | | 180 |
| Ser Lys Ser Ala | Pro Glu Gly Gly Thr | Ile Ile Tyr Met Pro | Pro | | |
| | 185 | | 190 | | 195 |
| Glu Asn Tyr Glu | Pro Gly Gln Lys Ser | Arg Ala Ser Ile Lys | His | | |
| | 200 | | 205 | | 210 |
| Asp Ile Tyr Ser | Tyr Ala Val Ile Thr | Trp Glu Val Leu Ser | Arg | | |
| | 215 | | 220 | | 225 |
| Lys Gln Pro Phe | Glu Asp Val Thr Asn | Pro Leu Gln Ile Met | Tyr | | |
| | 230 | | 235 | | 240 |
| Ser Val Ser Gln | Gly His Arg Pro Val | Ile Asn Glu Glu Ser | Leu | | |
| | 245 | | 250 | | 255 |
| Pro Tyr Asp Ile | Pro His Arg Ala Arg | Met Ile Ser Leu Ile | Glu | | |
| | 260 | | 265 | | 270 |
| Ser Gly Trp Ala | Gln Asn Pro Asp Glu | Arg Pro Ser Phe Leu | Lys | | |
| | 275 | | 280 | | 285 |
| Cys Leu Ile Glu | Leu Glu Pro Val Leu | Arg Thr Phe Glu Glu | Ile | | |
| | 290 | | 295 | | 300 |
| Thr Phe Leu Glu | Ala Val Ile Gln Leu | Lys Lys Thr Lys Leu | Gln | | |
| | 305 | | 310 | | 315 |
| Ser Val Ser Ser | Ala Ile His Leu Cys | Asp Lys Lys Lys Met | Glu | | |
| | 320 | | 325 | | 330 |
| Leu Ser Leu Asn | Ile Pro Val Asn His | Gly Pro Gln Glu Glu | Ser | | |
| | 335 | | 340 | | 345 |
| Cys Gly Ser Ser | Gln Leu His Glu Asn | Ser Gly Ser Pro Glu | Thr | | |
| | 350 | | 355 | | 360 |
| Ser Arg Ser Leu | Pro Ala Pro Gln Asp | Asn Asp Phe Leu Ser | Arg | | |
| | 365 | | 370 | | 375 |
| Lys Ala Gln Asp | Cys Tyr Phe Met Lys | Leu His His Cys Pro | Gly | | |
| | 380 | | 385 | | 390 |
| Asn His Ser Trp | Asp Ser Thr Ile Ser | Gly Ser Gln Arg Ala | Ala | | |
| | 395 | | 400 | | 405 |
| Phe Cys Asp His | Lys Thr Thr Pro Cys | Ser Ser Ala Ile Ile | Asn | | |
| | 410 | | 415 | | 420 |
| Pro Leu Ser Thr | Ala Gly Asn Ser Glu | Arg Leu Gln Pro Gly | Ile | | |
| | 425 | | 430 | | 435 |
| Ala Gln Gln Trp | Ile Gln Ser Lys Arg | Glu Asp Ile Val Asn | Gln | | |
| | 440 | | 445 | | 450 |
| Met Thr Glu Ala | Cys Leu Asn Gln Ser | Leu Asp Ala Leu Leu | Ser | | |
| | 455 | | 460 | | 465 |
| Arg Asp Leu Ile | Met Lys Glu Asp Tyr | Glu Leu Val Ser Thr | Lys | | |
| | 470 | | 475 | | 480 |
| Pro Thr Arg Thr | Ser Lys Val Arg Gln | Leu Leu Asp Thr Thr | Asp | | |
| | 485 | | 490 | | 495 |
| Ile Gln Gly Glu | Glu Phe Ala Lys Val | Ile Val Gln Lys Leu | Lys | | |
| | 500 | | 505 | | 510 |
| Asp Asn Lys Gln | Met Gly Leu Gln Pro | Tyr Pro Glu Ile Leu | Val | | |
| | 515 | | 520 | | 525 |
| Val Ser Arg Ser | Pro Ser Leu Asn Leu | Leu Gln Asn Lys Ser | Met | | |
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<223> Incyte Clone Number: 2983243

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Met | Tyr | Asn | Thr | Val | Trp | Asn | Met | Glu | Asp | Leu | Asp | Leu | Glu | Tyr | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Lys | Thr | Asp | Ile | Asn | Cys | Gly | Thr | Asp | Leu | Met | Phe | Tyr | Ile | |
| | | | | 20 | | | | | 25 | | | | | 30 | |
| Glu | Met | Asp | Pro | Pro | Ala | Leu | Pro | Pro | Lys | Pro | Pro | Lys | Pro | Thr | |
| | | | | 35 | | | | | 40 | | | | | 45 | |
| Thr | Val | Ala | Asn | Asn | Gly | Met | Asn | Asn | Met | Ser | Leu | Gln | Asp | | |
| | | | | 50 | | | | | 55 | | | | | 60 | |
| Ala | Glu | Trp | Tyr | Trp | Gly | Asp | Ile | Ser | Arg | Glu | Glu | Val | Asn | Glu | |
| | | | | 65 | | | | | 70 | | | | | 75 | |
| Lys | Leu | Arg | Asp | Thr | Ala | Asp | Gly | Thr | Phe | Leu | Val | Arg | Asp | Ala | |
| | | | | 80 | | | | | 85 | | | | | 90 | |
| Ser | Thr | Lys | Met | His | Gly | Asp | Tyr | Thr | Leu | Thr | Leu | Arg | Lys | Gly | |
| | | | | 95 | | | | | 100 | | | | | 105 | |
| Gly | Asn | Asn | Lys | Leu | Ile | Lys | Ile | Phe | His | Arg | Asp | Gly | Lys | Tyr | |
| | | | | 110 | | | | | 115 | | | | | 120 | |
| Gly | Phe | Ser | Asp | Pro | Leu | Thr | Phe | Ser | Ser | Val | Val | Glu | Leu | Ile | |
| | | | | 125 | | | | | 130 | | | | | 135 | |
| Asn | His | Tyr | Arg | Asn | Glu | Ser | Leu | Ala | Gln | Tyr | Asn | Pro | Lys | Leu | |
| | | | | 140 | | | | | 145 | | | | | 150 | |
| Asp | Val | Lys | Leu | Leu | Tyr | Pro | Val | Ser | Lys | Tyr | Gln | Gln | Asp | Gln | |
| | | | | 155 | | | | | 160 | | | | | 165 | |
| Val | Val | Lys | Glu | Asp | Asn | Ile | Glu | Ala | Val | Gly | Lys | Lys | Leu | His | |
| | | | | 170 | | | | | 175 | | | | | 180 | |
| Glu | Tyr | Asn | Thr | Gln | Phe | Gln | Glu | Lys | Ser | Arg | Glu | Tyr | Asp | Arg | |
| | | | | 185 | | | | | 190 | | | | | 195 | |
| Leu | Tyr | Glu | Glu | Tyr | Thr | Arg | Thr | Ser | Gln | Glu | Ile | Gln | Met | Lys | |
| | | | | 200 | | | | | 205 | | | | | 210 | |
| Arg | Thr | Ala | Ile | Glu | Ala | Phe | Asn | Glu | Thr | Ile | Lys | Ile | Phe | Glu | |
| | | | | 215 | | | | | 220 | | | | | 225 | |
| Glu | Gln | Cys | Gln | Thr | Gln | Glu | Arg | Tyr | Ser | Lys | Glu | Tyr | Ile | Glu | |
| | | | | 230 | | | | | 235 | | | | | 240 | |
| Lys | Phe | Lys | Arg | Glu | Gly | Asn | Glu | Lys | Glu | Ile | Gln | Arg | Ile | Met | |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| His | Asn | Tyr | Asp | Lys | Leu | Lys | Ser | Arg | Ile | Ser | Glu | Ile | Ile | Asp | |
| | | | | 260 | | | | | 265 | | | | | 270 | |
| Ser | Arg | Arg | Arg | Leu | Glu | Glu | Asp | Leu | Lys | Lys | Gln | Ala | Ala | Glu | |
| | | | | 275 | | | | | 280 | | | | | 285 | |
| Tyr | Arg | Glu | Ile | Asp | Lys | Arg | Met | Asn | Ser | Ile | Lys | Pro | Asp | Leu | |
| | | | | 290 | | | | | 295 | | | | | 300 | |
| Ile | Gln | Leu | Arg | Lys | Thr | Arg | Asp | Gln | Tyr | Leu | Met | Trp | Leu | Thr | |
| | | | | 305 | | | | | 310 | | | | | 315 | |
| Gln | Lys | Gly | Val | Arg | Gln | Lys | Lys | Leu | Asn | Glu | Trp | Leu | Gly | Asn | |
| | | | | 320 | | | | | 325 | | | | | 330 | |
| Glu | Asn | Thr | Glu | Asp | Gln | Tyr | Ser | Leu | Val | Glu | Asp | Asp | Glu | Asp | |
| | | | | 335 | | | | | 340 | | | | | 345 | |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | His | His | Asp | Glu | Lys | Thr | Trp | Asn | Val | Gly | Ser | Ser | Asn |
| | | | | 350 | | | | | 355 | | | | | 360 |
| Arg | Asn | Lys | Ala | Glu | Asn | Leu | Leu | Arg | Gly | Lys | Arg | Asp | Gly | Thr |
| | | | | 365 | | | | | 370 | | | | | 375 |
| Phe | Leu | Val | Arg | Glu | Ser | Ser | Lys | Gln | Gly | Cys | Tyr | Ala | Cys | Ser |
| | | | | 380 | | | | | 385 | | | | | 390 |
| Val | Val | Val | Asp | Gly | Glu | Val | Lys | His | Cys | Val | Ile | Asn | Lys | Thr |
| | | | | 395 | | | | | 400 | | | | | 405 |
| Ala | Thr | Gly | Tyr | Gly | Phe | Ala | Glu | Pro | Tyr | Asn | Leu | Tyr | Ser | Ser |
| | | | | 410 | | | | | 415 | | | | | 420 |
| Leu | Lys | Glu | Leu | Val | Leu | His | Tyr | Gln | His | Thr | Ser | Leu | Val | Gln |
| | | | | 425 | | | | | 430 | | | | | 435 |
| His | Asn | Asp | Ser | Leu | Asn | Val | Thr | Leu | Ala | Tyr | Pro | Val | Tyr | Ala |
| | | | | 440 | | | | | 445 | | | | | 450 |
| Gln | Gln | Arg | Arg | | | | | | | | | | | |

<210> 8

<211> 502

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 3173355

<400> 8

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| Met | Phe | Gly | Thr | Leu | Leu | Leu | Tyr | Cys | Phe | Phe | Leu | Ala | Thr | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Pro | Ala | Leu | Ala | Glu | Thr | Gly | Gly | Glu | Arg | Gln | Leu | Ser | Pro | Glu |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Lys | Ser | Glu | Ile | Trp | Gly | Pro | Gly | Leu | Lys | Ala | Asp | Val | Val | Leu |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Pro | Ala | Arg | Tyr | Phe | Tyr | Ile | Gln | Ala | Val | Asp | Thr | Ser | Gly | Asn |
| | | | | 50 | | | | | 55 | | | | | 60 |
| Lys | Phe | Thr | Ser | Ser | Pro | Gly | Glu | Lys | Val | Phe | Gln | Val | Lys | Val |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Ser | Ala | Pro | Glu | Glu | Gln | Phe | Thr | Arg | Val | Gly | Val | Gln | Val | Leu |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Asp | Arg | Lys | Asp | Gly | Ser | Phe | Ile | Val | Arg | Tyr | Arg | Met | Tyr | Ala |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Ser | Tyr | Lys | Asn | Leu | Lys | Val | Glu | Ile | Lys | Phe | Gln | Gly | Gln | His |
| | | | | 110 | | | | | 115 | | | | | 120 |
| Val | Ala | Lys | Ser | Pro | Tyr | Ile | Leu | Lys | Gly | Pro | Val | Tyr | His | Glu |
| | | | | 125 | | | | | 130 | | | | | 135 |
| Asn | Cys | Asp | Cys | Pro | Leu | Gln | Asp | Ser | Ala | Ala | Trp | Leu | Arg | Glu |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Met | Asn | Cys | Pro | Glu | Thr | Ile | Ala | Gln | Ile | Gln | Arg | Asp | Leu | Ala |
| | | | | 155 | | | | | 160 | | | | | 165 |
| His | Phe | Pro | Ala | Val | Asp | Pro | Glu | Lys | Ile | Ala | Val | Glu | Ile | Pro |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Lys | Arg | Phe | Gly | Gln | Arg | Gln | Ser | Leu | Cys | His | Tyr | Thr | Leu | Lys |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Asp | Asn | Lys | Val | Tyr | Ile | Lys | Thr | His | Gly | Glu | His | Val | Gly | Phe |
| | | | | 200 | | | | | 205 | | | | | 210 |
| Arg | Ile | Phe | Met | Asp | Ala | Ile | Leu | Leu | Ser | Leu | Thr | Arg | Lys | Val |

| | | | | | |
|-----------------|---------------------|---------------------|-----|--|-----|
| | 215 | | 220 | | 225 |
| Lys Met Pro Asp | Val Glu Leu Phe Val | Asn Leu Gly Asp Trp | Pro | | |
| | 230 | | 235 | | 240 |
| Leu Glu Lys Lys | Lys Ser Asn Ser Asn | Ile His Pro Ile Phe | Ser | | |
| | 245 | | 250 | | 255 |
| Trp Cys Gly Ser | Thr Asp Ser Lys Asp | Ile Val Met Pro Thr | Thr | | |
| | 260 | | 265 | | 270 |
| Asp Leu Thr Asp | Ser Val Leu Glu Thr | Met Gly Arg Val Ser | Leu | | |
| | 275 | | 280 | | 285 |
| Asp Met Met Ser | Val Gln Ala Asn Thr | Gly Pro Pro Trp Glu | Ser | | |
| | 290 | | 295 | | 300 |
| Lys Asn Ser Thr | Ala Val Trp Arg Gly | Arg Asp Ser Arg Lys | Glu | | |
| | 305 | | 310 | | 315 |
| Arg Leu Glu Leu | Val Lys Leu Ser Arg | Lys His Pro Glu Leu | Ile | | |
| | 320 | | 325 | | 330 |
| Asp Ala Ala Phe | Thr Asn Phe Phe Phe | Lys His Asp Glu | Asn | | |
| | 335 | | 340 | | 345 |
| Leu Tyr Gly Pro | Ile Val Lys His Ile | Ser Phe Phe Asp Phe | Phe | | |
| | 350 | | 355 | | 360 |
| Lys His Lys Tyr | Gln Ile Asn Ile Asp | Gly Thr Val Ala Ala | Tyr | | |
| | 365 | | 370 | | 375 |
| Arg Leu Pro Tyr | Leu Leu Val Gly Asp | Ser Val Val Leu Lys | Gln | | |
| | 380 | | 385 | | 390 |
| Asp Ser Ile Tyr | Tyr Glu His Phe Tyr | Asn Glu Leu Gln Pro | Trp | | |
| | 395 | | 400 | | 405 |
| Lys His Tyr Ile | Pro Val Lys Ser Asn | Leu Ser Asp Leu Leu | Glu | | |
| | 410 | | 415 | | 420 |
| Lys Leu Lys Trp | Ala Lys Asp Phe Asp | Glu Glu Ala Lys Lys | Ile | | |
| | 425 | | 430 | | 435 |
| Ala Lys Ala Gly | Gln Glu Phe Ala Arg | Asn Asn Leu Met Gly | Asp | | |
| | 440 | | 445 | | 450 |
| Asp Ile Phe Cys | Tyr Tyr Phe Lys Leu | Phe Gln Glu Tyr Ala | Asn | | |
| | 455 | | 460 | | 465 |
| Leu Gln Val Ser | Glu Pro Gln Ile Arg | Glu Gly Met Lys Arg | Val | | |
| | 470 | | 475 | | 480 |
| Glu Pro Gln Thr | Glu Asp Asp Leu Phe | Pro Cys Thr Cys His | Arg | | |
| | 485 | | 490 | | 495 |
| Lys Lys Thr Lys | Asp Glu Leu | | | | |
| | 500 | | | | |

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<211> 282

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 5116906

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| Met Trp Ala Cys Gly | Val Ile Leu Tyr | Ile Leu Leu Val Gly | Tyr |
| 1 | 5 | 10 | 15 |
| Pro Pro Phe Trp Asp | Glu Asp Gln His Arg | Leu Tyr Gln Gln | Ile |
| | 20 | 25 | 30 |
| Lys Ala Gly Ala Tyr | Asp Phe Pro Ser | Pro Glu Trp Asp Thr | Val |
| | 35 | 40 | 45 |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Glu | Ala | Lys | Asp | Leu | Ile | Asn | Lys | Met | Leu | Thr | Ile | Asn | 50 | 55 | 60 |
| Pro | Ala | Lys | Arg | Ile | Thr | Ala | Ser | Glu | Ala | Leu | Lys | His | Pro | Trp | 65 | 70 | 75 |
| Ile | Cys | Gln | Arg | Ser | Thr | Val | Ala | Ser | Met | Met | His | Arg | Gln | Glu | 80 | 85 | 90 |
| Thr | Val | Asp | Cys | Leu | Lys | Lys | Phe | Asn | Ala | Arg | Arg | Lys | Leu | Lys | 95 | 100 | 105 |
| Gly | Ala | Ile | Leu | Thr | Thr | Met | Leu | Ala | Thr | Arg | Asn | Phe | Ser | Ala | 110 | 115 | 120 |
| Ala | Lys | Ser | Leu | Leu | Lys | Lys | Pro | Asp | Gly | Val | Lys | Glu | Ser | Thr | 125 | 130 | 135 |
| Glu | Ser | Ser | Asn | Thr | Thr | Ile | Glu | Asp | Glu | Asp | Val | Lys | Ala | Arg | 140 | 145 | 150 |
| Lys | Gln | Glu | Ile | Ile | Lys | Val | Thr | Glu | Gln | Leu | Ile | Glu | Ala | Ile | 155 | 160 | 165 |
| Asn | Asn | Gly | Asp | Phe | Glu | Ala | Tyr | Thr | Lys | Ile | Cys | Asp | Pro | Gly | 170 | 175 | 180 |
| Leu | Thr | Ala | Phe | Glu | Pro | Glu | Ala | Leu | Gly | Asn | Leu | Val | Glu | Gly | 185 | 190 | 195 |
| Met | Asp | Phe | His | Arg | Phe | Tyr | Phe | Glu | Asn | Ala | Leu | Ser | Lys | Ser | 200 | 205 | 210 |
| Asn | Lys | Pro | Ile | His | Thr | Ile | Ile | Leu | Asn | Pro | His | Val | His | Leu | 215 | 220 | 225 |
| Val | Gly | Asp | Asp | Ala | Ala | Cys | Ile | Ala | Tyr | Ile | Arg | Leu | Thr | Gln | 230 | 235 | 240 |
| Tyr | Met | Asp | Gly | Ser | Gly | Met | Pro | Lys | Thr | Met | Gln | Ser | Glu | Glu | 245 | 250 | 255 |
| Thr | Arg | Val | Trp | His | Arg | Arg | Asp | Gly | Lys | Trp | Gln | Asn | Val | His | 260 | 265 | 270 |
| Phe | His | Arg | Ser | Gly | Ser | Pro | Thr | Val | Pro | Ile | Asn | | | | 275 | 280 | |

<210> 10

<211> 510

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 940589

<400> 10

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| Met | Lys | Ala | Asp | Ile | Lys | Ile | Trp | Ile | Leu | Thr | Gly | Asp | Lys | Gln | 1 | 5 | 10 | 15 |
| Glu | Thr | Ala | Ile | Asn | Ile | Gly | His | Ser | Cys | Lys | Leu | Leu | Lys | Lys | 20 | 25 | 30 | 35 |
| Asn | Met | Gly | Met | Ile | Val | Ile | Asn | Glu | Gly | Ser | Leu | Asp | Ser | Phe | 40 | 45 | 50 | 55 |
| Ser | Asn | Thr | Gln | Asn | Ser | Arg | Lys | Glu | Ala | Val | Leu | Leu | Ala | Lys | 60 | 65 | 70 | 75 |
| Met | Lys | His | Pro | Asn | Ile | Val | Ala | Phe | Lys | Glu | Ser | Phe | Glu | Ala | 80 | 85 | 90 | 95 |
| Glu | Gly | His | Leu | Tyr | Ile | Val | Met | Glu | Tyr | Cys | Asp | Gly | Gly | Asp | 100 | 105 | 110 | 115 |

| | | | |
|---|-----|-----|-----|
| Leu Met Gln Lys Ile Lys Gln Gln Lys Gly Lys Leu Phe Pro Glu | 95 | 100 | 105 |
| Asp Met Ile Leu Asn Trp Phe Thr Gln Met Cys Leu Gly Val Asn | 110 | 115 | 120 |
| His Ile His Lys Lys Arg Val Leu His Arg Asp Ile Lys Ser Lys | 125 | 130 | 135 |
| Asn Ile Phe Leu Thr Gln Asn Gly Lys Val Lys Leu Gly Asp Phe | 140 | 145 | 150 |
| Gly Ser Ala Arg Leu Leu Ser Asn Pro Met Ala Phe Ala Cys Thr | 155 | 160 | 165 |
| Tyr Val Gly Thr Pro Tyr Tyr Val Pro Pro Glu Ile Trp Glu Asn | 170 | 175 | 180 |
| Leu Pro Tyr Asn Asn Lys Ser Asp Ile Trp Ser Leu Gly Cys Ile | 185 | 190 | 195 |
| Leu Tyr Glu Leu Cys Thr Leu Lys His Pro Phe Gln Ala Asn Ser | 200 | 205 | 210 |
| Trp Lys Asn Leu Ile Leu Lys Val Cys Gln Gly Cys Ile Ser Pro | 215 | 220 | 225 |
| Leu Pro Ser His Tyr Ser Tyr Glu Leu Gln Phe Leu Val Lys Gln | 230 | 235 | 240 |
| Met Phe Lys Arg Asn Pro Ser His Arg Pro Ser Ala Thr Thr Leu | 245 | 250 | 255 |
| Leu Ser Arg Gly Ile Val Ala Arg Leu Val Gln Lys Cys Leu Pro | 260 | 265 | 270 |
| Pro Glu Ile Ile Met Glu Tyr Gly Glu Glu Val Leu Glu Glu Ile | 275 | 280 | 285 |
| Lys Asn Ser Lys His Asn Thr Pro Arg Lys Lys Thr Asn Pro Ser | 290 | 295 | 300 |
| Arg Ile Arg Ile Ala Leu Gly Asn Glu Ala Ser Thr Val Gln Glu | 305 | 310 | 315 |
| Glu Glu Gln Asp Arg Lys Gly Ser His Thr Asp Leu Glu Ser Ile | 320 | 325 | 330 |
| Asn Glu Asn Leu Val Glu Ser Ala Leu Arg Arg Val Asn Arg Glu | 335 | 340 | 345 |
| Glu Lys Gly Asn Lys Ser Val His Leu Arg Lys Ala Ser Ser Pro | 350 | 355 | 360 |
| Asn Leu His Arg Arg Gln Trp Glu Lys Asn Val Pro Asn Thr Ala | 365 | 370 | 375 |
| Leu Thr Ala Leu Glu Asn Ala Ser Ile Leu Thr Ser Ser Leu Thr | 380 | 385 | 390 |
| Ala Glu Asp Asp Arg Gly Gly Ser Val Ile Lys Tyr Ser Lys Asn | 395 | 400 | 405 |
| Thr Thr Arg Lys Gln Trp Leu Lys Glu Thr Pro Asp Thr Leu Leu | 410 | 415 | 420 |
| Asn Ile Leu Lys Asn Ala Asp Leu Ser Leu Ala Phe Gln Thr Tyr | 425 | 430 | 435 |
| Thr Ile Tyr Arg Pro Gly Ser Glu Gly Phe Leu Lys Gly Pro Leu | 440 | 445 | 450 |
| Ser Glu Glu Thr Glu Ala Ser Asp Ser Val Asp Gly Gly His Asp | 455 | 460 | 465 |
| Ser Val Ile Leu Asp Pro Glu Arg Leu Glu Pro Gly Leu Asp Glu | 470 | 475 | 480 |
| Glu Asp Thr Asp Phe Glu Glu Glu Asp Asp Asn Pro Asp Trp Val | 485 | 490 | 495 |
| Ser Glu Leu Lys Lys Arg Ala Gly Trp Gln Gly Leu Cys Asp Arg | 500 | 505 | 510 |

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 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte Clone Number: 304421

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 Thr Pro Cys Pro Ser Ile Leu Glu Leu Glu Glu Leu Leu Arg Ala
 20 25 30
 Gly Lys Ser Ser Cys Ser Arg Val Asp Glu Val Trp Pro Asn Leu
 35 40 45
 Phe Ile Gly Asp Ala Met Asp Ser Leu Gln Lys Gln Asp Leu Arg
 50 55 60
 Arg Pro Lys Ile His Gly Ala Val Gln Ala Ser Pro Tyr Gln Pro
 65 70 75
 Pro Thr Leu Ala Ser Leu Gln Arg Leu Leu Trp Val Arg Gln Ala
 80 85 90
 Ala Thr Leu Asn His Ile Asp Glu Val Trp Pro Ser Leu Phe Leu
 95 100 105
 Gly Asp Ala Tyr Ala Ala Arg Asp Lys Ser Lys Leu Ile Gln Leu
 110 115 120
 Gly Ile Thr His Val Val Asn Ala Ala Ala Gly Lys Phe Gln Val
 125 130 135
 Asp Thr Gly Ala Lys Phe Tyr Arg Gly Met Ser Leu Glu Tyr Tyr
 140 145 150
 Gly Ile Glu Ala Asp Asp Asn Pro Phe Phe Asp Leu Ser Val Tyr
 155 160 165
 Phe Leu Pro Val Ala Arg Tyr Ile Arg Ala Ala Leu Ser Val Pro
 170 175 180
 Gln Gly Arg Val Leu Val His Cys Ala Met Gly Val Ser Arg Ser
 185 190 195
 Ala Thr Leu Val Leu Ala Phe Leu Met Ile Tyr Glu Asn Met Thr
 200 205 210
 Leu Val Glu Ala Ile Gln Thr Val Gln Ala His Arg Asn Ile Cys
 215 220 225
 Pro Asn Ser Gly Phe Leu Arg Gln Leu Gln Val Leu Asp Asn Arg
 230 235 240
 Leu Gly Arg Glu Thr Gly Arg Phe
 245

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 <211> 810
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte Clone Number: 1213802

<400> 12

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| Met | Pro | Asn | Gln | Gly | Glu | Asp | Cys | Tyr | Phe | Phe | Phe | Tyr | Ser | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Cys | Thr | Lys | Gly | Asp | Ser | Cys | Pro | Phe | Arg | His | Cys | Glu | Ala | Ala |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Ile | Gly | Asn | Glu | Thr | Val | Cys | Thr | Leu | Trp | Gln | Glu | Gly | Arg | Cys |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Phe | Arg | Gln | Val | Cys | Arg | Phe | Arg | His | Met | Glu | Ile | Asp | Lys | Lys |
| | | | | 50 | | | | | 55 | | | | | 60 |
| Arg | Ser | Glu | Ile | Pro | Cys | Tyr | Trp | Glu | Asn | Gln | Pro | Thr | Gly | Cys |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Gln | Lys | Leu | Asn | Cys | Ala | Phe | His | His | Asn | Arg | Gly | Arg | Tyr | Val |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Asp | Gly | Leu | Phe | Leu | Pro | Pro | Ser | Lys | Thr | Val | Leu | Pro | Thr | Val |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Pro | Glu | Ser | Pro | Glu | Glu | Glu | Val | Lys | Ala | Ser | Gln | Leu | Ser | Val |
| | | | | 110 | | | | | 115 | | | | | 120 |
| Gln | Gln | Asn | Lys | Leu | Ser | Val | Gln | Ser | Asn | Pro | Ser | Pro | Gln | Leu |
| | | | | 125 | | | | | 130 | | | | | 135 |
| Arg | Ser | Val | Met | Lys | Val | Glu | Ser | Ser | Glu | Asn | Val | Pro | Ser | Pro |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Thr | His | Pro | Pro | Val | Val | Ile | Asn | Ala | Ala | Asp | Asp | Asp | Glu | Asp |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Asp | Asp | Asp | Gln | Phe | Ser | Glu | Glu | Gly | Asp | Glu | Thr | Lys | Thr | Pro |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Thr | Leu | Gln | Pro | Thr | Pro | Glu | Val | His | Asn | Gly | Leu | Arg | Val | Thr |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Ser | Val | Arg | Lys | Pro | Ala | Val | Asn | Ile | Lys | Gln | Gly | Glu | Cys | Leu |
| | | | | 200 | | | | | 205 | | | | | 210 |
| Asn | Phe | Gly | Ile | Lys | Thr | Leu | Glu | Glu | Ile | Lys | Ser | Lys | Lys | Met |
| | | | | 215 | | | | | 220 | | | | | 225 |
| Lys | Glu | Lys | Ser | Lys | Lys | Gln | Gly | Glu | Gly | Ser | Ser | Gly | Val | Ser |
| | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Leu | Leu | Leu | His | Pro | Glu | Pro | Val | Pro | Gly | Pro | Glu | Lys | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Asn | Val | Arg | Thr | Val | Val | Arg | Thr | Val | Thr | Leu | Ser | Thr | Lys | Gln |
| | | | | 260 | | | | | 265 | | | | | 270 |
| Gly | Glu | Glu | Pro | Leu | Val | Arg | Leu | Ser | Leu | Thr | Glu | Arg | Leu | Gly |
| | | | | 275 | | | | | 280 | | | | | 285 |
| Lys | Arg | Lys | Phe | Ser | Ala | Gly | Gly | Asp | Ser | Asp | Pro | Pro | Leu | Lys |
| | | | | 290 | | | | | 295 | | | | | 300 |
| Arg | Ser | Leu | Ala | Gln | Arg | Leu | Gly | Lys | Lys | Val | Glu | Ala | Pro | Glu |
| | | | | 305 | | | | | 310 | | | | | 315 |
| Thr | Asn | Ile | Asp | Lys | Thr | Pro | Lys | Lys | Ala | Gln | Val | Ser | Lys | Ser |
| | | | | 320 | | | | | 325 | | | | | 330 |
| Leu | Lys | Glu | Arg | Leu | Gly | Met | Ser | Ala | Asp | Pro | Asp | Asn | Glu | Asp |
| | | | | 335 | | | | | 340 | | | | | 345 |
| Ala | Thr | Asp | Lys | Val | Asn | Lys | Val | Gly | Glu | Ile | His | Val | Lys | Thr |
| | | | | 350 | | | | | 355 | | | | | 360 |
| Leu | Glu | Glu | Ile | Leu | Leu | Glu | Arg | Ala | Ser | Gln | Lys | Arg | Gly | Glu |
| | | | | 365 | | | | | 370 | | | | | 375 |
| Leu | Gln | Thr | Lys | Leu | Lys | Thr | Glu | Gly | Pro | Ser | Lys | Thr | Asp | Asp |
| | | | | 380 | | | | | 385 | | | | | 390 |
| Ser | Thr | Ser | Gly | Ala | Arg | Ser | Ser | Ser | Thr | Ile | Arg | Ile | Lys | Thr |
| | | | | 395 | | | | | 400 | | | | | 405 |
| Phe | Ser | Glu | Val | Leu | Ala | Glu | Lys | Lys | His | Arg | Gln | Gln | Glu | Ala |

| | | | |
|---|-----|-----|-----|
| | 410 | 415 | 420 |
| Glu Arg Gln Lys Ser Lys Lys Asp Thr Thr Cys Ile Lys Leu Lys | | | |
| | 425 | 430 | 435 |
| Ile Asp Ser Glu Ile Lys Lys Thr Val Val Leu Pro Pro Ile Val | | | |
| | 440 | 445 | 450 |
| Ala Ser Arg Gly Gln Ser Glu Glu Pro Ala Gly Lys Thr Lys Ser | | | |
| | 455 | 460 | 465 |
| Met Gln Glu Val His Ile Lys Thr Leu Glu Glu Ile Lys Leu Glu | | | |
| | 470 | 475 | 480 |
| Lys Ala Leu Arg Val Gln Gln Ser Ser Glu Ser Ser Thr Ser Ser | | | |
| | 485 | 490 | 495 |
| Pro Ser Gln His Glu Ala Thr Pro Gly Ala Arg Arg Leu Leu Arg | | | |
| | 500 | 505 | 510 |
| Ile Thr Lys Arg Thr Gly Met Lys Glu Glu Lys Asn Leu Gln Glu | | | |
| | 515 | 520 | 525 |
| Gly Asn Glu Val Asp Ser Gln Ser Ser Ile Arg Thr Glu Ala Lys | | | |
| | 530 | 535 | 540 |
| Glu Ala Ser Gly Glu Thr Thr Gly Val Asp Ile Thr Lys Ile Gln | | | |
| | 545 | 550 | 555 |
| Val Lys Arg Cys Glu Thr Met Arg Glu Lys His Met Gln Lys Gln | | | |
| | 560 | 565 | 570 |
| Gln Glu Arg Glu Lys Ser Val Leu Thr Pro Leu Arg Gly Asp Val | | | |
| | 575 | 580 | 585 |
| Ala Ser Cys Asn Thr Gln Val Ala Glu Lys Pro Val Leu Thr Ala | | | |
| | 590 | 595 | 600 |
| Val Pro Gly Ile Thr Arg His Leu Thr Lys Arg Leu Pro Thr Lys | | | |
| | 605 | 610 | 615 |
| Ser Ser Gln Lys Val Glu Val Glu Thr Ser Gly Ile Gly Asp Ser | | | |
| | 620 | 625 | 630 |
| Leu Leu Asn Val Lys Cys Ala Ala Gln Thr Leu Glu Lys Arg Gly | | | |
| | 635 | 640 | 645 |
| Lys Ala Lys Pro Lys Val Asn Val Lys Pro Ser Val Val Lys Val | | | |
| | 650 | 655 | 660 |
| Val Ser Ser Pro Lys Leu Ala Pro Lys Arg Lys Ala Val Glu Met | | | |
| | 665 | 670 | 675 |
| His Ala Ala Val Ile Ala Ala Val Lys Pro Leu Ser Ser Ser Ser | | | |
| | 680 | 685 | 690 |
| Val Leu Gln Glu Pro Pro Ala Lys Lys Ala Ala Val Ala Val Val | | | |
| | 695 | 700 | 705 |
| Pro Leu Val Ser Glu Asp Lys Ser Val Thr Val Pro Glu Ala Glu | | | |
| | 710 | 715 | 720 |
| Asn Pro Arg Asp Ser Leu Val Leu Pro Pro Thr Gln Ser Ser Ser | | | |
| | 725 | 730 | 735 |
| Asp Ser Ser Pro Pro Glu Val Ser Gly Pro Ser Ser Ser Gln Met | | | |
| | 740 | 745 | 750 |
| Ser Met Lys Thr Arg Arg Leu Ser Ser Ala Ser Thr Gly Lys Pro | | | |
| | 755 | 760 | 765 |
| Pro Leu Ser Val Glu Asp Asp Phe Glu Lys Leu Ile Trp Glu Ile | | | |
| | 770 | 775 | 780 |
| Ser Gly Gly Lys Leu Glu Ala Glu Ile Asp Leu Asp Pro Gly Lys | | | |
| | 785 | 790 | 795 |
| Asp Glu Asp Asp Leu Leu Leu Glu Leu Ser Glu Met Ile Asp Ser | | | |
| | 800 | 805 | 310 |

<210> 13

<Q11> 549

<Q12> PRT

<Q13> Homo sapiens

<Q20>

<Q21> misc_feature

<Q23> Incyte Clone Number: 1378134

<Q400> 13

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Arg | Arg | Ala | Ser | Asn | Ala | Ala | Ala | Ala | Ala | His | Thr | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Gly | Gly | Ser | Lys | His | Thr | Met | Asn | Asp | His | Leu | His | Val | Gly | Ser |
| | | | | 20 | | | | | 25 | | | | | 30 |
| His | Ala | His | Gly | Gln | Ile | Gln | Val | Arg | Gln | Leu | Phe | Glu | Asp | Asn |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Ser | Asn | Lys | Arg | Thr | Val | Leu | Thr | Thr | Gln | Pro | Asn | Gly | Leu | Thr |
| | | | | 50 | | | | | 55 | | | | | 60 |
| Thr | Val | Gly | Lys | Thr | Gly | Leu | Pro | Val | Val | Pro | Glu | Arg | Gln | Leu |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Asp | Ser | Ile | His | Arg | Arg | Gln | Gly | Ser | Ser | Thr | Ser | Leu | Lys | Ser |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Met | Glu | Gly | Met | Gly | Lys | Val | Lys | Ala | Thr | Pro | Met | Thr | Pro | Glu |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Gln | Ala | Met | Lys | Gln | Tyr | Met | Gln | Lys | Leu | Thr | Ala | Phe | Glu | His |
| | | | | 110 | | | | | 115 | | | | | 120 |
| His | Glu | Ile | Phe | Ser | Tyr | Pro | Glu | Ile | Tyr | Phe | Leu | Gly | Leu | Asn |
| | | | | 125 | | | | | 130 | | | | | 135 |
| Ala | Lys | Lys | Arg | Gln | Gly | Met | Thr | Gly | Gly | Pro | Asn | Asn | Gly | Gly |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Tyr | Asp | Asp | Asp | Gln | Gly | Ser | Tyr | Val | Gln | Val | Pro | His | Asp | His |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Val | Ala | Tyr | Arg | Tyr | Glu | Val | Leu | Lys | Val | Ile | Gly | Lys | Gly | Ser |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Phe | Gly | Gln | Val | Val | Lys | Ala | Tyr | Asp | His | Lys | Val | His | Gln | His |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Val | Ala | Leu | Lys | Met | Val | Arg | Asn | Glu | Lys | Arg | Phe | His | Arg | Gln |
| | | | | 200 | | | | | 205 | | | | | 210 |
| Ala | Ala | Glu | Glu | Ile | Arg | Ile | Leu | Glu | His | Leu | Arg | Lys | Gln | Asp |
| | | | | 215 | | | | | 220 | | | | | 225 |
| Lys | Asp | Asn | Thr | Met | Asn | Val | Ile | His | Met | Leu | Glu | Asn | Phe | Thr |
| | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Arg | Asn | His | Ile | Cys | Met | Thr | Phe | Glu | Leu | Leu | Ser | Met | Asn |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Leu | Tyr | Glu | Leu | Ile | Lys | Lys | Asn | Lys | Phe | Gln | Gly | Phe | Ser | Leu |
| | | | | 260 | | | | | 265 | | | | | 270 |
| Pro | Leu | Val | Arg | Lys | Phe | Ala | His | Ser | Ile | Leu | Gln | Cys | Leu | Asp |
| | | | | 275 | | | | | 280 | | | | | 285 |
| Ala | Leu | His | Lys | Asn | Arg | Ile | Ile | His | Cys | Asp | Leu | Lys | Pro | Glu |
| | | | | 290 | | | | | 295 | | | | | 300 |
| Asn | Ile | Leu | Leu | Lys | Gln | Gln | Gly | Arg | Ser | Gly | Ile | Lys | Val | Ile |
| | | | | 305 | | | | | 310 | | | | | 315 |
| Asp | Phe | Gly | Ser | Ser | Cys | Tyr | Glu | His | Gln | Arg | Val | Tyr | Thr | Tyr |
| | | | | 320 | | | | | 325 | | | | | 330 |
| Ile | Gln | Ser | Arg | Phe | Tyr | Arg | Ala | Pro | Glu | Val | Ile | Leu | Gly | Ala |
| | | | | 335 | | | | | 340 | | | | | 345 |
| Arg | Tyr | Gly | Met | Pro | Ile | Asp | Met | Trp | Ser | Leu | Gly | Cys | Ile | Leu |

| | | | |
|---------------------|---------------------|-------------------------|-----|
| Ala Glu Leu Leu | 350 | 355 | 360 |
| Thr Gly Tyr Pro Leu | | Leu Pro Gly Glu Asp | Glu |
| | 365 | 370 | 375 |
| Gly Asp Gln Leu | Ala Cys Met Ile Glu | Leu Leu Gly Met Pro | Ser |
| | 380 | 385 | 390 |
| Gln Lys Leu Leu | Asp Ala Ser Lys Arg | Ala Lys Asn Phe Val | Ser |
| | 395 | 400 | 405 |
| Ser Lys Gly Tyr | Pro Arg Tyr Cys Thr | Val Thr Thr Leu Ser | Asp |
| | 410 | 415 | 420 |
| Gly Ser Val Val | Leu Asn Gly Gly Arg | Ser Arg Arg Gly Lys | Leu |
| | 425 | 430 | 435 |
| Arg Gly Pro Pro | Glu Ser Arg Glu Trp | Gly Asn Ala Leu Lys | Gly |
| | 440 | 445 | 450 |
| Cys Asp Asp Pro | Leu Phe Leu Asp Phe | Leu Lys Gln Cys Leu | Glu |
| | 455 | 460 | 465 |
| Trp Asp Pro Ala | Val Arg Met Thr | Pro Gly Gln Ala Leu Arg | His |
| | 470 | 475 | 480 |
| Pro Trp Leu Arg | Arg Arg Leu Pro Lys | Pro Pro Thr Gly Glu | Lys |
| | 485 | 490 | 495 |
| Thr Ser Val Lys | Arg Ile Thr Glu Ser | Thr Gly Ala Ile Thr | Ser |
| | 500 | 505 | 510 |
| Ile Ser Lys Leu | Pro Pro Pro Ser Ser | Ser Ala Ser Lys Leu | Arg |
| | 515 | 520 | 525 |
| Thr Asn Leu Ala | Gln Met Thr Asp Ala | Asn Gly Asn Ile Gln | Gln |
| | 530 | 535 | 540 |
| Arg Thr Val Leu | Pro Lys Leu Val Ser | | |
| | 545 | | |

<210> 14

<211> 416

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 1490070

<400> 14

| | |
|-------------------------------------|-------------------------|
| Met Met Pro Gln Leu Gln Phe Lys Asp | Ala Phe Trp Cys Arg Asp |
| 1 | 5 10 15 |
| Phe Thr Ala His Thr Gly Tyr Glu Val | Leu Leu Gln Arg Leu Leu |
| 20 | 25 30 |
| Asp Gly Arg Lys Met Cys Lys Asp Met | Val Glu Leu Leu Trp Gln |
| 35 | 40 45 |
| Arg Ala Gln Ala Glu Arg Tyr Gly Lys | Glu Leu Val Gln Ile |
| 50 | 55 60 |
| Ala Arg Lys Ala Gly Gly Gln Thr Glu | Ile Asn Ser Leu Arg Ala |
| 65 | 70 75 |
| Ser Phe Asp Ser Leu Lys Gln Gln Met | Glu Asn Val Gly Ser Ser |
| 80 | 85 90 |
| His Ile Gln Leu Ala Leu Thr Leu Arg | Glu Glu Leu Arg Ser Leu |
| 95 | 100 105 |
| Glu Glu Phe Arg Glu Arg Gln Lys Glu | Gln Arg Lys Lys Tyr Glu |
| 110 | 115 120 |
| Ala Val Met Asp Arg Val Gln Lys Ser | Lys Leu Ser Leu Tyr Lys |

| | | | | | |
|---|-----|--|-----|--|-----|
| | 125 | | 130 | | 135 |
| Lys Ala Met Glu Ser Lys Lys Thr Tyr Glu Gln Lys Cys Arg Asp | | | | | |
| | 140 | | 145 | | 150 |
| Ala Asp Asp Ala Glu Gln Ala Phe Glu Arg Ile Ser Ala Asn Gly | | | | | |
| | 155 | | 160 | | 165 |
| His Gln Lys Gln Val Glu Lys Ser Gln Asn Lys Ala Arg Gln Cys | | | | | |
| | 170 | | 175 | | 180 |
| Lys Asp Ser Ala Thr Glu Ala Glu Arg Val Tyr Arg Gln Ser Ile | | | | | |
| | 185 | | 190 | | 195 |
| Ala Gln Leu Glu Lys Val Arg Ala Glu Trp Glu Gln Glu His Arg | | | | | |
| | 200 | | 205 | | 210 |
| Thr Thr Cys Glu Ala Phe Gln Leu Gln Glu Phe Asp Arg Leu Thr | | | | | |
| | 215 | | 220 | | 225 |
| Ile Leu Arg Asn Ala Leu Trp Val His Ser Asn Gln Leu Ser Met | | | | | |
| | 230 | | 235 | | 240 |
| Gln Cys Val Lys Asp Asp Glu Leu Tyr Glu Glu Val Arg Leu Thr | | | | | |
| | 245 | | 250 | | 255 |
| Leu Glu Gly Cys Ser Ile Asp Ala Asp Ile Asp Ser Phe Ile Gln | | | | | |
| | 260 | | 265 | | 270 |
| Ala Lys Ser Thr Gly Thr Glu Pro Pro Ala Pro Val Pro Tyr Gln | | | | | |
| | 275 | | 280 | | 285 |
| Asn Tyr Tyr Asp Arg Glu Val Thr Pro Leu Thr Ser Ser Pro Gly | | | | | |
| | 290 | | 295 | | 300 |
| Ile Gln Pro Ser Cys Gly Met Ile Lys Arg Phe Ser Gly Leu Leu | | | | | |
| | 305 | | 310 | | 315 |
| His Gly Ser Pro Lys Thr Thr Ser Leu Ala Ala Ser Ala Ala Ser | | | | | |
| | 320 | | 325 | | 330 |
| Thr Glu Thr Leu Thr Pro Thr Pro Glu Arg Asn Glu Gly Val Tyr | | | | | |
| | 335 | | 340 | | 345 |
| Thr Ala Ile Ala Val Gln Glu Ile Gln Gly Asn Pro Ala Ser Pro | | | | | |
| | 350 | | 355 | | 360 |
| Ala Gln Glu Tyr Arg Ala Leu Tyr Asp Tyr Thr Ala Gln Asn Pro | | | | | |
| | 365 | | 370 | | 375 |
| Asp Glu Leu Asp Leu Ser Ala Gly Asp Ile Leu Glu Val Ile Leu | | | | | |
| | 380 | | 385 | | 390 |
| Glu Gly Glu Asp Gly Trp Trp Thr Val Glu Arg Asn Gly Gln Arg | | | | | |
| | 395 | | 400 | | 405 |
| Gly Phe Val Pro Gly Ser Tyr Leu Glu Lys Leu | | | | | |
| | 410 | | 415 | | |

<210> 15

<211> 425

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 1997814

<400> 15

| | | | |
|---|----|----|----|
| Met Glu Gln Gly Leu Glu Glu Glu Glu Glu Val Asp Pro Arg Ile | | | |
| 1 | 5 | 10 | 15 |
| Gln Gly Glu Leu Glu Lys Leu Asn Gln Ser Thr Asp Asp Ile Asn | | | |
| | 20 | 25 | 30 |
| Arg Arg Glu Thr Glu Leu Glu Asp Ala Arg Gln Lys Phe Arg Ser | | | |
| | 35 | 40 | 45 |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Val | Glu | Ala | Thr | Val | Lys | Leu | Asp | Glu | Leu | Val | Lys | Lys | 50 | 55 | 60 |
| Ile | Gly | Lys | Ala | Val | Glu | Asp | Ser | Lys | Pro | Tyr | Trp | Glu | Ala | Arg | 55 | 70 | 75 |
| Arg | Val | Ala | Arg | Gln | Ala | Gln | Leu | Glu | Ala | Gln | Lys | Ala | Thr | Gln | 80 | 85 | 90 |
| Asp | Phe | Gln | Arg | Ala | Thr | Glu | Val | Leu | Arg | Ala | Ala | Lys | Glu | Thr | 95 | 100 | 105 |
| Ile | Ser | Leu | Ala | Glu | Gln | Arg | Leu | Leu | Glu | Asp | Asp | Lys | Arg | Gln | 110 | 115 | 120 |
| Phe | Asp | Ser | Ala | Trp | Gln | Glu | Met | Leu | Asn | His | Ala | Thr | Gln | Arg | 125 | 130 | 135 |
| Val | Met | Glu | Ala | Glu | Gln | Thr | Lys | Thr | Arg | Ser | Glu | Leu | Val | His | 140 | 145 | 150 |
| Lys | Glu | Thr | Ala | Ala | Arg | Tyr | Asn | Ala | Ala | Met | Gly | Arg | Met | Arg | 155 | 160 | 165 |
| Gln | Leu | Glu | Lys | Lys | Leu | Lys | Arg | Ala | Ile | Asn | Lys | Ser | Lys | Pro | 170 | 175 | 180 |
| Tyr | Phe | Glu | Leu | Lys | Ala | Lys | Tyr | Tyr | Val | Gln | Leu | Glu | Gln | Leu | 185 | 190 | 195 |
| Lys | Lys | Thr | Val | Asp | Asp | Leu | Gln | Ala | Lys | Leu | Thr | Leu | Ala | Lys | 200 | 205 | 210 |
| Gly | Glu | Tyr | Lys | Met | Ala | Leu | Lys | Asn | Leu | Glu | Met | Ile | Ser | Asp | 215 | 220 | 225 |
| Glu | Ile | His | Glu | Arg | Arg | Arg | Ser | Ser | Ala | Met | Gly | Pro | Arg | Gly | 230 | 235 | 240 |
| Cys | Gly | Val | Gly | Ala | Glu | Gly | Ser | Ser | Thr | Ser | Val | Glu | Asp | Leu | 245 | 250 | 255 |
| Pro | Gly | Ser | Lys | Pro | Glu | Pro | Asp | Ala | Ile | Ser | Val | Ala | Ser | Glu | 260 | 265 | 270 |
| Ala | Phe | Glu | Asp | Asp | Ser | Cys | Ser | Asn | Phe | Val | Ser | Glu | Asp | Asp | 275 | 280 | 285 |
| Ser | Glu | Thr | Gln | Ser | Val | Ser | Ser | Phe | Ser | Ser | Gly | Pro | Thr | Ser | 290 | 295 | 300 |
| Pro | Ser | Glu | Met | Pro | Asp | Gln | Phe | Pro | Ala | Val | Val | Arg | Pro | Gly | 305 | 310 | 315 |
| Ser | Leu | Asp | Leu | Pro | Ser | Pro | Val | Ser | Leu | Ser | Glu | Phe | Gly | Met | 320 | 325 | 330 |
| Met | Phe | Pro | Val | Leu | Gly | Pro | Arg | Ser | Glu | Cys | Ser | Gly | Ala | Ser | 335 | 340 | 345 |
| Ser | Pro | Glu | Cys | Glu | Val | Glu | Arg | Gly | Asp | Arg | Ala | Glu | Gly | Ala | 350 | 355 | 360 |
| Glu | Asn | Lys | Thr | Ser | Asp | Lys | Ala | Asn | Asn | Asn | Arg | Gly | Leu | Ser | 365 | 370 | 375 |
| Ser | Ser | Ser | Gly | Ser | Gly | Gly | Ser | Ser | Lys | Ser | Gln | Ser | Ser | Thr | 380 | 385 | 390 |
| Ser | Pro | Glu | Gly | Gln | Ala | Leu | Glu | Asn | Arg | Met | Lys | Gln | Leu | Ser | 395 | 400 | 405 |
| Leu | Gln | Cys | Ser | Lys | Gly | Arg | Asp | Gly | Ile | Ile | Ala | Asp | Ile | Lys | 410 | 415 | 420 |
| Met | Val | Gln | Ile | Gly | | | | | | | | | | | 425 | | |

<210> 16

<211> 1135

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2299715

<400> 16

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Met Ala Asn Asp Ser Pro Ala Lys Ser Leu Val Asp Ile Asp Leu
  1          5          10          15
Ser Ser Leu Arg Asp Pro Ala Gly Ile Phe Glu Leu Val Glu Val
          20          25          30
Val Gly Asn Gly Thr Tyr Gly Gln Val Tyr Lys Gly Arg His Val
          35          40          45
Lys Thr Gly Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu
          50          55          60

Asp Glu Glu Glu Glu Ile Lys Leu Glu Ile Asn Met Leu Lys Lys
          65          70          75
Tyr Ser His His Arg Asn Ile Ala Thr Tyr Tyr Gly Ala Phe Ile
          80          85          90
Lys Lys Ser Pro Pro Gly His Asp Asp Gln Leu Trp Leu Val Met
          95          100          105
Glu Phe Cys Gly Ala Gly Ser Ile Thr Asp Leu Val Lys Asn Thr
          110          115          120
Lys Gly Asn Thr Leu Lys Glu Asp Trp Ile Ala Tyr Ile Ser Arg
          125          130          135
Glu Ile Leu Arg Gly Leu Ala His Leu His Ile His His Val Ile
          140          145          150
His Arg Asp Ile Lys Gly Gln Asn Val Leu Leu Thr Glu Asn Ala
          155          160          165
Gly Val Lys Leu Val Asp Phe Gly Val Ser Ala Gln Leu Asp Arg
          170          175          180
Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro Tyr Trp Met
          185          190          195
Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala Thr Tyr
          200          205          210
Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile Glu
          215          220          225
Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg
          230          235          240
Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser
          245          250          255
Lys Lys Trp Ser Lys Lys Phe Phe Ser Phe Ile Glu Gly Cys Leu
          260          265          270
Val Lys Asn Tyr Met Gln Arg Pro Ser Thr Glu Gln Leu Leu Lys
          275          280          285
His Pro Phe Ile Arg Asp Gln Pro Asn Glu Arg Gln Val Arg Ile
          290          295          300
Gln Leu Lys Asp His Ile Asp Arg Thr Arg Lys Lys Arg Gly Glu
          305          310          315
Lys Asp Glu Thr Glu Tyr Glu Tyr Ser Gly Ser Glu Glu Glu Glu
          320          325          330
Glu Glu Val Pro Glu Gln Glu Gly Glu Pro Ser Ser Ile Val Asn
          335          340          345
Val Pro Gly Glu Ser Thr Leu Arg Arg Asp Phe Leu Arg Leu Gln

```

| | | | | | |
|-----------------|---------------------|---------------------|-----|--|-----|
| | 350 | | 355 | | 360 |
| Gln Glu Asn Lys | Glu Arg Ser Glu Ala | Leu Arg Arg Gln Gln | Leu | | |
| | 365 | | 370 | | 375 |
| Leu Gln Glu Gln | Gln Leu Arg Glu Gln | Glu Glu Tyr Lys Arg | Gln | | |
| | 380 | | 385 | | 390 |
| Leu Leu Ala Glu | Arg Gln Lys Arg Ile | Glu Gln Gln Lys Glu | Gln | | |
| | 395 | | 400 | | 405 |
| Arg Arg Arg Leu | Glu Glu Gln Gln Arg | Arg Glu Arg Glu Ala | Arg | | |
| | 410 | | 415 | | 420 |
| Arg Gln Gln Glu | Arg Glu Gln Arg Arg | Arg Glu Gln Glu Glu | Lys | | |
| | 425 | | 430 | | 435 |
| Arg Arg Leu Glu | Glu Leu Glu Arg Arg | Arg Lys Glu Glu Glu | Glu | | |
| | 440 | | 445 | | 450 |
| Arg Arg Arg Ala | Glu Glu Glu Lys Arg | Arg Val Glu Arg Glu | Gln | | |
| | 455 | | 460 | | 465 |
| Glu Tyr Ile Arg | Arg Gln Leu Glu Glu | Glu Gln Arg His Leu | Glu | | |
| | 470 | | 475 | | 480 |
| Val Leu Gln Gln | Gln Leu Leu Gln Glu | Ala Met Leu Leu | His | | |
| | 485 | | 490 | | 495 |
| Asp His Arg Arg | Pro His Pro Gln His | Ser Gln Gln Pro Pro | Pro | | |
| | 500 | | 505 | | 510 |
| Pro Gln Gln Glu | Arg Ser Lys Pro Ser | Phe His Ala Pro Glu | Pro | | |
| | 515 | | 520 | | 525 |
| Lys Ala His Tyr | Glu Pro Ala Asp Arg | Ala Arg Glu Val Pro | Val | | |
| | 530 | | 535 | | 540 |
| Arg Thr Thr Ser | Arg Ser Pro Val Leu | Ser Arg Arg Asp Ser | Pro | | |
| | 545 | | 550 | | 555 |
| Leu Gln Gly Ser | Gly Gln Gln Asn Ser | Gln Ala Gly Gln Arg | Asn | | |
| | 560 | | 565 | | 570 |
| Ser Thr Ser Ile | Glu Pro Arg Leu Leu | Trp Glu Arg Val Glu | Lys | | |
| | 575 | | 580 | | 585 |
| Leu Val Pro Arg | Pro Gly Ser Gly Ser | Ser Ser Gly Ser Ser | Asn | | |
| | 590 | | 595 | | 600 |
| Ser Gly Ser Gln | Pro Gly Ser His Pro | Gly Ser Gln Ser Gly | Ser | | |
| | 605 | | 610 | | 615 |
| Gly Glu Arg Phe | Arg Val Arg Ser Ser | Ser Lys Ser Glu Gly | Ser | | |
| | 620 | | 625 | | 630 |
| Pro Ser Gln Arg | Leu Glu Asn Ala Val | Lys Lys Pro Glu Asp | Lys | | |
| | 635 | | 640 | | 645 |
| Lys Glu Val Phe | Arg Pro Leu Lys Pro | Ala Asp Leu Thr Ala | Leu | | |
| | 650 | | 655 | | 660 |
| Ala Lys Glu Leu | Arg Ala Val Glu Asp | Val Arg Pro Pro His | Lys | | |
| | 665 | | 670 | | 675 |
| Val Thr Asp Tyr | Ser Ser Ser Ser Glu | Glu Ser Gly Thr Thr | Asp | | |
| | 680 | | 685 | | 690 |
| Glu Glu Asp Asp | Asp Val Glu Gln Glu | Gly Ala Asp Glu Ser | Thr | | |
| | 695 | | 700 | | 705 |
| Ser Gly Pro Glu | Asp Thr Arg Ala Ala | Ser Ser Leu Asn Leu | Ser | | |
| | 710 | | 715 | | 720 |
| Asn Gly Glu Thr | Glu Ser Val Lys Thr | Met Ile Val His Asp | Asp | | |
| | 725 | | 730 | | 735 |
| Val Glu Ser Glu | Pro Ala Met Thr Pro | Ser Lys Glu Gly Thr | Leu | | |
| | 740 | | 745 | | 750 |
| Ile Val Arg Gln | Thr Gln Ser Ala Ser | Ser Thr Leu Gln Lys | His | | |
| | 755 | | 760 | | 765 |
| Lys Ser Ser Ser | Ser Phe Thr Pro Phe | Ile Asp Pro Arg Leu | Leu | | |

| | | | | | |
|-----------------|---------------------|-----------------------------|-------------------------|-----------------|---------|
| Gln Ile Ser Pro | 770 | Val Thr Ser Val Val | 775 | Thr Ser Val Val | 780 |
| 735 | Ser Ser Gly Thr Thr | 790 | Val Thr Ser Val Val | 795 | Gly |
| Phe Ser Cys Asp | 800 | Ala Ile Arg Gln Asp | 805 | Pro | 810 |
| 815 | Met Arg Pro Glu | 820 | Ile Arg Gln Asp | 825 | Pro |
| Thr Arg Lys Gly | 830 | Asn Val Asn Pro Thr Asn Thr | 835 | Arg | 840 |
| 845 | Ser Val Val Asn Val | 850 | Asn Pro Thr Asn Thr | 855 | Arg |
| Pro Gln Ser Asp | 860 | Lys Tyr Lys Lys Arg | 865 | Phe | 870 |
| 875 | Thr Pro Glu Ile Arg | 880 | Lys Tyr Lys Lys Arg | 885 | Phe |
| Asn Ser Glu Ile | 890 | Trp Gly Val Asn Leu Leu | 895 | Leu Leu | 900 |
| 895 | Leu Cys Ala Ala Leu | 905 | Trp Gly Val Asn Leu Leu | 910 | Leu Leu |
| Val Gly Thr Glu | 915 | Asp Arg Ser Gly Gln | 920 | Gln | 925 |
| 920 | Ser Gly Leu Met Leu | 925 | Asp Arg Ser Gly Gln | 930 | Gln |
| Gly Lys Val Tyr | 935 | Arg Arg Phe Gln Gln Met | 940 | Met | 945 |
| 940 | Pro Leu Ile Asn Arg | 945 | Arg Arg Phe Gln Gln Met | 950 | Met |
| Asp Val Leu Glu | 955 | Thr Ile Ser Gly Lys | 960 | Lys | 965 |
| 960 | Gly Leu Asn Val Leu | 965 | Thr Ile Ser Gly Lys | 970 | Lys |
| Lys Asp Lys Leu | 975 | Trp Leu Arg Asn Lys | 980 | Lys | 985 |
| 980 | Arg Val Tyr Tyr Leu | 985 | Trp Leu Arg Asn Lys | 990 | Lys |
| Ile Leu His Asn | 995 | Lys Lys Gln Gly Trp Thr | 1000 | Thr | 1005 |
| 1000 | Asp Pro Glu Val Glu | 1005 | Lys Lys Gln Gly Trp Thr | 1010 | Thr |
| 1005 | Pro Glu Val Glu | 1010 | Lys Lys Gln Gly Trp Thr | 1015 | Thr |
| Thr Val Gly Asp | 1015 | His Tyr Lys Val Val Lys | 1020 | Lys | 1025 |
| 1020 | Leu Glu Gly Cys Val | 1025 | His Tyr Lys Val Val Lys | 1030 | Lys |
| 1025 | His Tyr Lys Val Val | 1030 | His Tyr Lys Val Val Lys | 1035 | Lys |
| Tyr Glu Arg Ile | 1035 | Ala Leu Lys Ser Ser Val | 1040 | Val | 1045 |
| 1040 | Lys Phe Leu Val Ile | 1045 | Ala Leu Lys Ser Ser Val | 1050 | Val |
| 1045 | Ala Leu Lys Ser Ser | 1050 | Ala Leu Lys Ser Ser Val | 1055 | Val |
| Glu Val Tyr Ala | 1055 | Met Ala | 1060 | Ala | 1065 |
| 1060 | Trp Ala Pro Lys Pro | 1065 | Met Ala | 1070 | Ala |
| 1065 | Ala Pro Lys Pro | 1070 | Met Ala | 1075 | Ala |
| Phe Lys Ser Phe | 1075 | Gly Ser Cys Ala Gly Phe | 1080 | Phe | 1085 |
| 1080 | Cly Glu Leu Val His | 1085 | Gly Ser Cys Ala Gly Phe | 1090 | Phe |
| 1085 | Glu Leu Val His | 1090 | Gly Ser Cys Ala Gly Phe | 1095 | Phe |
| His Ala Val Asp | 1095 | Ile Tyr Leu | 1100 | Leu | 1105 |
| 1100 | Val Asp Ser Gly Ser | 1105 | Ile Tyr Leu | 1110 | Leu |
| 1105 | Val Asp Ser Gly Ser | 1110 | Ile Tyr Leu | 1115 | Leu |
| Pro Thr His Ile | 1115 | His Ala Ile Ile Ile | 1120 | Ile | 1125 |
| 1120 | Gln Cys Ser Ile Lys | 1125 | Ile Ile Ile Ile | 1130 | Ile |
| 1125 | Pro His Ala Ile Ile | 1130 | Ile Ile Ile Ile | 1135 | Ile |
| Leu Pro Asn Thr | 1130 | Val Cys Tyr Glu Asp | 1135 | Asp | |
| 1135 | Thr Asp Gly Met Glu | | Asp | | |
| Glu Gly Val Tyr | | Ile Thr Lys Asp Val | | Val | |
| 1040 | Val Asn Thr Tyr Gly | | Val | | |
| 1045 | Arg Ile Thr Lys Asp | | Val | | |
| Val Leu Gln Trp | | Val Ala Tyr Ile Arg | | Arg | |
| 1055 | Gly Glu Met Pro Thr | | Arg | | |
| 1060 | Ser Val Ala Tyr Ile | | Arg | | |
| Ser Asn Gln Thr | | Ile Arg | | | |
| 1070 | Met Gly Trp Gly Glu | | | | |
| 1075 | Lys Ala Ile Glu Ile | | | | |
| Ser Val Glu Thr | | Arg | | | |
| 1085 | Gly His Leu Asp Gly | | | | |
| 1090 | Val Phe Met His Lys | | | | |
| Ala Gln Arg Leu | | Arg | | | |
| 1100 | Lys Phe Leu Cys Glu | | | | |
| 1105 | Arg Asn Asp Lys Val | | | | |
| Phe Ala Ser Val | | Phe | | | |
| 1115 | Arg Ser Gly Gly Ser | | | | |
| 1120 | Gln Val Tyr Phe Met | | | | |
| Thr Leu Gly Arg | | Thr | | | |
| 1130 | Thr Ser Leu Leu Ser | | | | |
| | Trp | | | | |

<210> 17

<211> 228

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 209854

<400> 17

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Met Pro Thr Asn Cys Ala Ala Ala Gly Cys Ala Thr Thr Tyr Asn
  1                      5                      10                      15
Lys His Ile Asn Ile Ser Phe His Arg Phe Pro Leu Asp Pro Lys
                      20                      25                      30
Arg Arg Lys Glu Trp Val Arg Leu Val Arg Arg Lys Asn Phe Val
                      35                      40                      45
Pro Gly Lys His Thr Phe Leu Cys Ser Lys His Phe Glu Ala Ser
                      50                      55                      60
Cys Phe Asp Leu Thr Gly Gln Thr Arg Arg Leu Lys Met Asp Ala
                      65                      70                      75
Val Pro Thr Ile Phe Asp Phe Cys Thr His Ile Lys Ser Met Lys
                      80                      85                      90
Leu Lys Ser Arg Asn Leu Leu Lys Lys Asn Asn Ser Cys Ser Pro
                      95                      100                      105
Ala Gly Pro Ser Asn Leu Lys Ser Asn Ile Ser Ser Gln Gln Val
                      110                      115                      120
Leu Leu Glu His Ser Tyr Ala Phe Arg Asn Pro Met Glu Ala Lys
                      125                      130                      135
Lys Arg Ile Ile Lys Leu Glu Lys Glu Ile Ala Ser Leu Arg Arg
                      140                      145                      150
Lys Met Lys Thr Cys Leu Gln Lys Glu Arg Arg Ala Thr Arg Arg
                      155                      160                      165
Trp Ile Lys Ala Thr Cys Leu Val Lys Asn Leu Glu Ala Asn Ser
                      170                      175                      180
Val Leu Pro Lys Gly Thr Ser Glu His Met Leu Pro Thr Ala Leu
                      185                      190                      195
Ser Ser Leu Pro Leu Glu Asp Phe Lys Ile Leu Glu Gln Asp Gln
                      200                      205                      210
Gln Asp Lys Thr Leu Leu Ser Leu Asn Leu Lys Gln Thr Lys Ser
                      215                      220                      225
Thr Phe Ile

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<210> 18

<211> 503

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 1384286

<400> 18

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Met Ala Thr Thr Val Thr Cys Thr Arg Phe Thr Asp Glu Tyr Gln
  1                      5                      10                      15
Leu Tyr Glu Asp Ile Gly Lys Gly Ala Phe Ser Val Val Arg Arg
                      20                      25                      30
Cys Val Lys Leu Cys Thr Gly His Glu Tyr Ala Ala Lys Ile Ile
                      35                      40                      45
Asn Thr Lys Lys Leu Ser Ala Arg Asp His Gln Lys Leu Glu Arg

```

| | | | | | |
|-----------------|-------------------------|-------------------------|-----|--|-----|
| | 50 | | 55 | | 60 |
| Glu Ala Arg Ile | Cys Arg Leu Leu Lys | His Ser Asn Ile Val Arg | | | |
| | 65 | | 70 | | 75 |
| Leu His Asp Ser | Ile Ser Glu Glu Gly Phe | His Tyr Leu Val Phe | | | |
| | 80 | | 85 | | 90 |
| Asp Leu Val Thr | Gly Gly Glu Leu Phe | Glu Asp Ile Val Ala Arg | | | |
| | 95 | | 100 | | 105 |
| Glu Tyr Tyr Ser | Glu Ala Asp Ala Ser | His Cys Ile Gln Gln Ile | | | |
| | 110 | | 115 | | 120 |
| Leu Glu Ala Val | Leu His Cys His Gln | Met Gly Val Val His Arg | | | |
| | 125 | | 130 | | 135 |
| Asp Leu Lys Pro | Glu Asn Leu Leu Leu | Ala Ser Lys Cys Lys Gly | | | |
| | 140 | | 145 | | 150 |
| Ala Ala Val Lys | Leu Ala Asp Phe Gly | Leu Ala Ile Glu Val Gln | | | |
| | 155 | | 160 | | 165 |
| Gly Asp Gln Gln | Ala Trp Phe Gly Phe | Ala Gly Thr Pro Gly Tyr | | | |
| | 170 | | 175 | | 180 |
| Leu Ser Pro Glu | Val Leu Arg Lys Glu | Ala Tyr Gly Lys Pro Val | | | |
| | 185 | | 190 | | 195 |
| Asp Ile Trp Ala | Cys Gly Val Ile Leu | Tyr Ile Leu Leu Val Gly | | | |
| | 200 | | 205 | | 210 |
| Tyr Pro Pro Phe | Trp Asp Glu Asp Gln | His Lys Leu Tyr Gln Gln | | | |
| | 215 | | 220 | | 225 |
| Ile Lys Ala Gly | Ala Tyr Asp Phe Pro | Ser Pro Glu Trp Asp Thr | | | |
| | 230 | | 235 | | 240 |
| Val Thr Pro Glu | Ala Lys Asn Leu Ile | Asn Gln Met Leu Thr Ile | | | |
| | 245 | | 250 | | 255 |
| Asn Pro Ala Lys | Arg Ile Thr Ala His | Glu Ala Leu Lys His Pro | | | |
| | 260 | | 265 | | 270 |
| Trp Val Cys Gln | Arg Ser Thr Val Ala | Ser Met Met His Arg Gln | | | |
| | 275 | | 280 | | 285 |
| Glu Thr Val Glu | Cys Leu Lys Lys Phe | Asn Ala Arg Arg Lys Leu | | | |
| | 290 | | 295 | | 300 |
| Lys Gly Ala Ile | Leu Thr Thr Met Leu | Ala Thr Arg Asn Phe Ser | | | |
| | 305 | | 310 | | 315 |
| Ala Ala Lys Ser | Leu Leu Asn Lys Lys | Ala Asp Gly Val Lys Pro | | | |
| | 320 | | 325 | | 330 |
| His Thr Asn Ser | Thr Lys Asn Ser Ala | Ala Ala Thr Ser Pro Lys | | | |
| | 335 | | 340 | | 345 |
| Gly Thr Leu Pro | Pro Ala Ala Leu Glu | Ser Ser Asp Ser Ala Asn | | | |
| | 350 | | 355 | | 360 |
| Thr Thr Ile Glu | Asp Glu Asp Ala Lys | Ala Arg Lys Gln Glu Ile | | | |
| | 365 | | 370 | | 375 |
| Ile Lys Thr Thr | Glu Gln Leu Ile Glu | Ala Val Asn Asn Gly Asp | | | |
| | 380 | | 385 | | 390 |
| Phe Glu Ala Tyr | Ala Lys Ile Cys Asp | Pro Gly Leu Thr Ser Phe | | | |
| | 395 | | 400 | | 405 |
| Glu Pro Glu Ala | Leu Gly Asn Leu Val | Glu Gly Met Asp Phe His | | | |
| | 410 | | 415 | | 420 |
| Arg Phe Tyr Phe | Glu Asn Leu Leu Ala | Lys Asn Ser Lys Pro Ile | | | |
| | 425 | | 430 | | 435 |
| His Thr Thr Ile | Leu Asn Pro His Val | His Val Ile Gly Glu Asp | | | |
| | 440 | | 445 | | 450 |
| Ala Ala Cys Ile | Ala Tyr Ile Arg Leu | Thr Gln Tyr Ile Asp Gly | | | |
| | 455 | | 460 | | 465 |
| Gln Gly Arg Pro | Arg Thr Ser Gln Ser | Glu Glu Thr Arg Val Trp | | | |

| | | | | | |
|---|-----|--|-----|--|-----|
| | 470 | | 475 | | 480 |
| His Arg Arg Asp Gly Lys Trp Gln Asn Val His Phe His Cys Ser | | | | | |
| | 485 | | 490 | | 495 |
| Gly Ala Pro Val Ala Pro Leu Gln | | | | | |
| | 500 | | | | |

<210> 19
 <211> 433
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte Clone Number: 1512656

<400> 19
 Met Thr Gly Glu Ala Gln Ala Gly Arg Lys Arg Ser Arg Ala Arg
 1 5 10 15
 Pro Glu Gly Thr Glu Pro Val Arg Arg Glu Arg Thr Gln Pro Gly
 20 25 30
 Leu Gly Pro Gly Arg Ala Arg Ala Met Ala Ala Glu Ala Thr Ala
 35 40 45
 Val Ala Gly Ser Gly Ala Val Gly Gly Cys Leu Ala Lys Asp Gly
 50 55 60
 Leu Gln Gln Ser Lys Cys Pro Asp Thr Thr Pro Lys Arg Arg Arg
 65 70 75
 Ala Ser Ser Leu Ser Arg Asp Ala Glu Arg Arg Ala Tyr Gln Trp
 80 85 90
 Cys Arg Glu Tyr Leu Gly Gly Ala Trp Arg Arg Val Gln Pro Glu
 95 100 105
 Glu Leu Arg Val Tyr Pro Val Ser Gly Gly Leu Ser Asn Leu Leu
 110 115 120
 Phe Arg Cys Ser Leu Pro Asp His Leu Pro Ser Val Gly Glu Glu
 125 130 135
 Pro Arg Glu Val Leu Leu Arg Leu Tyr Gly Ala Ile Leu Gln Gly
 140 145 150
 Val Asp Ser Leu Val Leu Glu Ser Val Met Phe Ala Ile Leu Ala
 155 160 165
 Glu Arg Ser Leu Gly Pro Gln Leu Tyr Gly Val Phe Pro Glu Gly
 170 175 180
 Arg Leu Glu Gln Tyr Ile Pro Ser Arg Pro Leu Lys Thr Gln Glu
 185 190 195
 Leu Arg Glu Pro Val Leu Ser Ala Ala Ile Ala Thr Lys Met Ala
 200 205 210
 Gln Phe His Gly Met Glu Met Pro Phe Thr Lys Glu Pro His Trp
 215 220 225
 Leu Phe Gly Thr Met Glu Arg Tyr Leu Lys Gln Ile Gln Asp Leu
 230 235 240
 Pro Pro Thr Gly Leu Pro Glu Met Asn Leu Leu Glu Met Tyr Ser
 245 250 255
 Leu Lys Asp Glu Met Gly Asn Leu Arg Lys Leu Leu Glu Ser Thr
 260 265 270
 Pro Ser Pro Val Val Phe Cys His Asn Asp Ile Gln Glu Gly Asn

| | | | |
|---|-----|-----|-----|
| Ile Leu Leu Leu Ser Glu Pro Glu Asn Ala Asp Ser Leu Met Leu | 275 | 280 | 285 |
| | 290 | 295 | 300 |
| Val Asp Phe Glu Tyr Ser Ser Tyr Asn Tyr Arg Gly Phe Asp Ile | 305 | 310 | 315 |
| Gly Asn His Phe Cys Glu Trp Val Tyr Asp Tyr Thr His Glu Glu | 320 | 325 | 330 |
| Trp Pro Phe Tyr Lys Ala Arg Pro Thr Asp Tyr Pro Thr Gln Glu | 335 | 340 | 345 |
| Gln Gln Leu His Phe Ile Arg His Tyr Leu Ala Glu Ala Lys Lys | 350 | 355 | 360 |
| Gly Glu Thr Leu Ser Gln Glu Glu Gln Arg Lys Leu Glu Glu Asp | 365 | 370 | 375 |
| Leu Leu Val Glu Val Ser Arg Tyr Ala Leu Ala Ser His Phe Phe | 380 | 385 | 390 |
| Trp Gly Leu Trp Ser Ile Leu Gln Ala Ser Met Ser Thr Ile Glu | 395 | 400 | 405 |
| Phe Gly Tyr Leu Asp Tyr Ala Gln Ser Arg Phe Gln Phe Tyr Phe | 410 | 415 | 420 |
| Gln Gln Lys Gly Gln Leu Thr Ser Val His Ser Ser Ser | 425 | 430 | |

<210> 20

<211> 527

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2098635

<400> 20

| | | | | |
|---|-----|-----|-----|-----|
| Met Ser Leu Cys Gly Ala Arg Ala Asn Ala Lys Met Met Ala Ala | 1 | 5 | 10 | 15 |
| Tyr Asn Gly Gly Thr Ser Ala Ala Ala Ala Gly His His His His | 20 | 25 | 30 | 35 |
| His His His His Leu Pro His Leu Pro Pro Pro His Leu Leu His | 35 | 40 | 45 | 50 |
| His His His Pro Gln His His Leu His Pro Gly Ser Ala Ala Ala | 55 | 60 | 65 | 70 |
| Val His Pro Val Gln Gln His Thr Ser Ser Ala Ala Ala Ala Ala | 75 | 80 | 85 | 90 |
| Gln Pro Tyr Phe Pro Ser Pro Ala Pro Gly Gln Ala Pro Gly Pro | 95 | 100 | 105 | 110 |
| Ala Ala Ala Ala Pro Ala Gln Val Gln Ala Ala Ala Ala Ala Thr | 115 | 120 | 125 | 130 |
| Val Lys Ala His His His Gln His Ser His His Pro Gln Gln Gln | 135 | 140 | 145 | 150 |
| Leu Asp Ile Glu Pro Asp Arg Pro Ile Gly Tyr Gly Ala Phe Gly | 155 | 160 | 165 | |
| Val Val Trp Ser Val Thr Asp Pro Arg Asp Gly Lys Arg Val Ala | | | | |
| Leu Lys Lys Met Pro Asn Val Phe Gln Asn Leu Val Ser Cys Lys | | | | |

| | | | |
|-----------------|---|-----|-----|
| | 170 | 175 | 180 |
| Arg Val Phe Arg | Glu Leu Lys Met Leu Cys Phe Phe Lys His Asp | | |
| | 185 | 190 | 195 |
| Asn Val Leu Ser | Ala Leu Asp Ile Leu Gln Pro Pro His Ile Asp | | |
| | 200 | 205 | 210 |
| Tyr Phe Glu Glu | Ile Tyr Val Val Thr Glu Leu Met Gln Ser Asp | | |
| | 215 | 220 | 225 |
| Leu His Lys Ile | Ile Val Ser Pro Gln Pro Leu Ser Ser Asp His | | |
| | 230 | 235 | 240 |
| Val Lys Val Phe | Leu Tyr Gln Ile Leu Arg Gly Leu Lys Tyr Leu | | |
| | 245 | 250 | 255 |
| His Ser Ala Cly | Ile Leu His Arg Asp Ile Lys Pro Gly Asn Leu | | |
| | 260 | 265 | 270 |
| Leu Val Asn Ser | Asn Cys Val Leu Lys Ile Cys Asp Phe Gly Leu | | |
| | 275 | 280 | 285 |
| Ala Arg Val Glu | Glu Leu Asp Glu Ser Arg His Met Thr Gln Glu | | |
| | 290 | 295 | 300 |
| Val Val Thr Gln | Tyr Tyr Arg Ala Pro Glu Ile Leu Met Gly Ser | | |
| | 305 | 310 | 315 |
| Arg His Tyr Ser | Asn Ala Ile Asp Ile Trp Ser Val Gly Cys Ile | | |
| | 320 | 325 | 330 |
| Phe Ala Glu Leu | Leu Gly Arg Arg Ile Leu Phe Gln Ala Gln Ser | | |
| | 335 | 340 | 345 |
| Pro Ile Gln Gln | Leu Asp Leu Ile Thr Asp Leu Leu Gly Thr Pro | | |
| | 350 | 355 | 360 |
| Ser Leu Glu Ala | Met Arg Thr Ala Cys Glu Gly Ala Lys Ala His | | |
| | 365 | 370 | 375 |
| Ile Leu Arg Gly | Pro His Lys Cln Pro Ser Leu Pro Val Leu Tyr | | |
| | 380 | 385 | 390 |
| Thr Leu Ser Ser | Gln Ala Thr His Glu Ala Val His Leu Leu Cys | | |
| | 395 | 400 | 405 |
| Arg Met Leu Val | Phe Asp Pro Ser Lys Arg Ile Ser Ala Lys Asp | | |
| | 410 | 415 | 420 |
| Ala Leu Ala His | Pro Tyr Leu Asp Glu Gly Arg Leu Arg Tyr His | | |
| | 425 | 430 | 435 |
| Thr Cys Met Cys | Lys Cys Cys Phe Ser Thr Ser Thr Gly Arg Val | | |
| | 440 | 445 | 450 |
| Tyr Thr Ser Asp | Phe Glu Pro Val Thr Asn Pro Lys Phe Asp Asp | | |
| | 455 | 460 | 465 |
| Thr Phe Glu Lys | Asn Leu Ser Ser Val Arg Gln Val Lys Glu Ile | | |
| | 470 | 475 | 480 |
| Ile His Gln Phe | Ile Leu Glu Gln Gln Lys Gly Asn Arg Val Pro | | |
| | 485 | 490 | 495 |
| Leu Cys Ile Asn | Pro Gln Ser Ala Ala Phe Lys Ser Phe Ile Ser | | |
| | 500 | 505 | 510 |
| Ser Thr Val Ala | Gln Pro Ser Glu Met Pro Pro Ser Pro Leu Val | | |
| | 515 | 520 | 525 |
| Trp Glu | | | |

<210> 21

<211> 322

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2446646

<400> 21

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Met Glu Gly Ile Ser Asn Phe Lys Thr Pro Ser Lys Leu Ser Glu
 1          5          10          15
Lys Lys Lys Ser Val Leu Cys Ser Thr Pro Thr Ile Asn Ile Pro
 20          25          30
Ala Ser Pro Phe Met Gln Lys Leu Gly Phe Gly Thr Gly Val Asn
 35          40          45
Val Tyr Leu Met Lys Arg Ser Pro Arg Gly Leu Ser His Ser Pro
 50          55          60
Trp Ala Val Lys Lys Ile Asn Pro Ile Cys Asn Asp His Tyr Arg
 65          70          75
Ser Val Tyr Gln Lys Arg Leu Met Asp Glu Ala Lys Ile Leu Lys
 80          85          90
Ser Leu His His Pro Asn Ile Val Gly Tyr Arg Ala Phe Thr Glu
 95          100         105
Ala Asn Asp Gly Ser Leu Cys Leu Ala Met Glu Tyr Gly Gly Glu
 110         115         120
Lys Ser Leu Asn Asp Leu Ile Glu Glu Arg Tyr Lys Ala Ser Gln
 125         130         135
Asp Pro Phe Pro Ala Ala Ile Ile Leu Lys Val Ala Leu Asn Met
 140         145         150
Ala Arg Gly Leu Lys Tyr Leu His Gln Glu Lys Lys Leu Leu His
 155         160         165
Gly Asp Ile Lys Ser Ser Asn Val Val Ile Lys Gly Asp Phe Glu
 170         175         180
Thr Ile Lys Ile Cys Asp Val Gly Val Ser Leu Pro Leu Asp Glu
 185         190         195
Asn Met Thr Val Thr Asp Pro Glu Ala Cys Tyr Ile Gly Thr Glu
 200         205         210
Pro Trp Lys Pro Lys Glu Ala Val Glu Glu Asn Gly Val Ile Thr
 215         220         225
Asp Lys Ala Asp Ile Phe Ala Phe Gly Leu Thr Leu Trp Glu Met
 230         235         240
Met Thr Leu Ser Ile Pro His Ile Asn Leu Ser Asn Asp Asp Asp
 245         250         255
Asp Glu Asp Lys Thr Phe Asp Glu Ser Asp Phe Asp Asp Glu Ala
 260         265         270
Tyr Tyr Ala Ala Leu Gly Thr Arg Pro Pro Ile Asn Met Glu Glu
 275         280         285
Leu Asp Glu Ser Tyr Gln Lys Val Ile Glu Leu Phe Ser Val Cys
 290         295         300
Thr Asn Glu Asp Pro Lys Asp Arg Pro Ser Ala Ala His Ile Val
 305         310         315
Glu Ala Leu Glu Thr Asp Val
 320

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<210> 22

<211> 802

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2764911

<400> 22

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Met | Glu | Glu | Glu | Gly | Gly | Ser | Ser | Gly | Gly | Ala | Ala | Gly | Thr | Ser | 1 | 5 | 10 | 15 |
| Ala | Asp | Gly | Gly | Asp | Gly | Gly | Glu | Gln | Leu | Leu | Thr | Val | Lys | His | 20 | 25 | 30 | |
| Glu | Leu | Arg | Thr | Ala | Asn | Leu | Thr | Gly | His | Ala | Glu | Lys | Val | Gly | 35 | 40 | 45 | |
| Ile | Glu | Asn | Phe | Glu | Leu | Leu | Lys | Val | Leu | Gly | Thr | Gly | Ala | Tyr | 50 | 55 | 60 | |
| Gly | Lys | Val | Phe | Leu | Val | Arg | Lys | Ile | Ser | Gly | His | Asp | Thr | Gly | 65 | 70 | 75 | |
| Lys | Leu | Tyr | Ala | Met | Lys | Val | Leu | Lys | Lys | Ala | Thr | Ile | Val | Gln | 80 | 85 | 90 | |
| Lys | Ala | Lys | Thr | Thr | Glu | His | Thr | Arg | Thr | Glu | Arg | Gln | Val | Leu | 95 | 100 | 105 | |
| Glu | His | Ile | Arg | Gln | Ser | Pro | Phe | Leu | Val | Thr | Leu | His | Tyr | Ala | 110 | 115 | 120 | |
| Phe | Gln | Thr | Glu | Thr | Lys | Leu | His | Leu | Ile | Leu | Asp | Tyr | Ile | Asn | 125 | 130 | 135 | |
| Gly | Gly | Glu | Leu | Phe | Thr | His | Leu | Ser | Gln | Arg | Glu | Arg | Phe | Thr | 140 | 145 | 150 | |
| Glu | His | Glu | Val | Gln | Ile | Tyr | Val | Gly | Glu | Ile | Val | Leu | Ala | Leu | 155 | 160 | 165 | |
| Glu | His | Leu | His | Lys | Leu | Gly | Ile | Ile | Tyr | Arg | Asp | Ile | Lys | Leu | 170 | 175 | 180 | |
| Glu | Asn | Ile | Leu | Leu | Asp | Ser | Asn | Gly | His | Val | Val | Leu | Thr | Asp | 185 | 190 | 195 | |
| Phe | Gly | Leu | Ser | Lys | Glu | Phe | Val | Ala | Asp | Glu | Thr | Glu | Arg | Ala | 200 | 205 | 210 | |
| Tyr | Ser | Phe | Cys | Gly | Thr | Ile | Glu | Tyr | Met | Ala | Pro | Asp | Ile | Val | 215 | 220 | 225 | |
| Arg | Gly | Gly | Asp | Ser | Gly | His | Asp | Lys | Ala | Val | Asp | Trp | Trp | Ser | 230 | 235 | 240 | |
| Leu | Gly | Val | Leu | Met | Tyr | Glu | Leu | Leu | Thr | Gly | Ala | Ser | Pro | Phe | 245 | 250 | 255 | |
| Thr | Val | Asp | Gly | Glu | Lys | Asn | Ser | Gln | Ala | Glu | Ile | Ser | Arg | Arg | 260 | 265 | 270 | |
| Ile | Leu | Lys | Ser | Glu | Pro | Pro | Tyr | Pro | Gln | Glu | Met | Ser | Ala | Leu | 275 | 280 | 285 | |
| Ala | Lys | Asp | Leu | Ile | Gln | Arg | Leu | Leu | Met | Lys | Asp | Pro | Lys | Lys | 290 | 295 | 300 | |
| Arg | Leu | Gly | Cys | Gly | Pro | Arg | Asp | Ala | Asp | Glu | Ile | Lys | Glu | His | 305 | 310 | 315 | |
| Leu | Phe | Phe | Gln | Lys | Ile | Asn | Trp | Asp | Asp | Leu | Ala | Ala | Lys | Lys | 320 | 325 | 330 | |
| Val | Pro | Ala | Pro | Phe | Lys | Pro | Val | Ile | Arg | Asp | Glu | Leu | Asp | Val | 335 | 340 | 345 | |
| Ser | Asn | Phe | Ala | Glu | Glu | Phe | Thr | Glu | Met | Asp | Pro | Thr | Tyr | Ser | 350 | 355 | 360 | |
| Pro | Ala | Ala | Leu | Pro | Gln | Ser | Ser | Glu | Lys | Leu | Phe | Gln | Gly | Tyr | 365 | 370 | 375 | |
| Ser | Phe | Val | Ala | Pro | Ser | Ile | Leu | Phe | Lys | Arg | Asn | Ala | Ala | Val | 380 | 385 | 390 | |
| Ile | Asp | Pro | Leu | Gln | Phe | His | Met | Gly | Val | Glu | Arg | Pro | Gly | Val | | | | |

| | | | | | |
|---|-----|--|-----|--|-----|
| | 395 | | 400 | | 405 |
| Thr Asn Val Ala Arg Ser Ala Met Met Lys Asp Ser Pro Phe Tyr | | | | | |
| | 410 | | 415 | | 420 |
| Gln His Tyr Asp Leu Asp Leu Lys Asp Lys Pro Leu Gly Glu Gly | | | | | |
| | 425 | | 430 | | 435 |
| Ser Phe Ser Ile Cys Arg Lys Cys Val His Lys Lys Ser Asn Gln | | | | | |
| | 440 | | 445 | | 450 |
| Ala Phe Ala Val Lys Ile Ile Ser Lys Arg Met Glu Ala Asn Thr | | | | | |
| | 455 | | 460 | | 465 |
| Gln Lys Glu Ile Thr Ala Leu Glu Leu Cys Glu Gly His Pro Asn | | | | | |
| | 470 | | 475 | | 480 |
| Ile Val Lys Leu His Glu Val Phe His Asp Gln Leu His Thr Phe | | | | | |
| | 485 | | 490 | | 495 |
| Leu Val Met Glu Leu Leu Asn Gly Gly Glu Leu Phe Glu Arg Ile | | | | | |
| | 500 | | 505 | | 510 |
| Lys Lys Lys Lys His Phe Ser Glu Thr Glu Ala Ser Tyr Ile Met | | | | | |
| | 515 | | 520 | | 525 |
| Arg Lys Leu Val Ser Ala Val Ser His Met His Asp Val Gly Val | | | | | |
| | 530 | | 535 | | 540 |
| Val His Arg Asp Leu Lys Pro Glu Asn Leu Leu Phe Thr Asp Glu | | | | | |
| | 545 | | 550 | | 555 |
| Asn Asp Asn Leu Glu Ile Lys Ile Ile Asp Phe Gly Phe Ala Arg | | | | | |
| | 560 | | 565 | | 570 |
| Leu Lys Pro Pro Asp Asn Gln Pro Leu Lys Thr Pro Cys Phe Thr | | | | | |
| | 575 | | 580 | | 585 |
| Leu His Tyr Ala Ala Pro Glu Leu Leu Asn Gln Asn Gly Tyr Asp | | | | | |
| | 590 | | 595 | | 600 |
| Glu Ser Cys Asp Leu Trp Ser Leu Gly Val Ile Leu Tyr Thr Met | | | | | |
| | 605 | | 610 | | 615 |
| Leu Ser Gly Gln Val Pro Phe Gln Ser His Asp Arg Ser Leu Thr | | | | | |
| | 620 | | 625 | | 630 |
| Cys Thr Ser Ala Val Glu Ile Met Lys Lys Ile Lys Lys Gly Asp | | | | | |
| | 635 | | 640 | | 645 |
| Phe Ser Phe Glu Gly Glu Ala Trp Lys Asn Val Ser Gln Glu Ala | | | | | |
| | 650 | | 655 | | 660 |
| Lys Asp Leu Ile Gln Gly Leu Leu Thr Val Asp Pro Asn Lys Arg | | | | | |
| | 665 | | 670 | | 675 |
| Leu Lys Met Ser Gly Leu Arg Tyr Asn Glu Trp Leu Gln Asp Gly | | | | | |
| | 680 | | 685 | | 690 |
| Ser Gln Leu Ser Ser Asn Pro Leu Met Thr Pro Asp Ile Leu Gly | | | | | |
| | 695 | | 700 | | 705 |
| Ser Ser Gly Ala Ala Val His Thr Cys Val Lys Ala Thr Phe His | | | | | |
| | 710 | | 715 | | 720 |
| Ala Phe Asn Lys Tyr Lys Arg Glu Gly Phe Cys Leu Gln Asn Val | | | | | |
| | 725 | | 730 | | 735 |
| Asp Lys Ala Pro Leu Ala Lys Arg Arg Lys Met Lys Lys Thr Ser | | | | | |
| | 740 | | 745 | | 750 |
| Thr Ser Thr Glu Thr Arg Ser Ser Ser Ser Glu Ser Ser His Ser | | | | | |
| | 755 | | 760 | | 765 |
| Ser Ser Ser His Ser His Gly Lys Thr Thr Pro Thr Lys Thr Leu | | | | | |
| | 770 | | 775 | | 780 |
| Gln Pro Ser Asn Pro Ala Asp Ser Asn Asn Pro Glu Thr Leu Phe | | | | | |
| | 785 | | 790 | | 795 |
| Gln Phe Ser Asp Ser Val Ala | | | | | |
| | 800 | | | | |

<210> 23
 <211> 641
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte Clone Number: 3013946

<400> 23
 Met Ala Thr Thr Val Thr Cys Thr Arg Phe Thr Asp Glu Tyr Gln
 1 5 10 15
 Leu Tyr Glu Asp Ile Gly Lys Gly Ala Phe Ser Val Val Arg Arg
 20 25 30
 Cys Val Lys Leu Cys Thr Gly His Glu Tyr Ala Ala Lys Ile Ile
 35 40 45
 Asn Thr Lys Lys Leu Ser Ala Arg Asp His Gln Lys Leu Glu Arg
 50 55 60
 Glu Ala Arg Ile Cys Arg Leu Leu Lys His Ser Asn Ile Val Arg
 65 70 75
 Leu His Asp Ser Ile Ser Glu Glu Gly Phe His Tyr Leu Val Phe
 80 85 90
 Asp Leu Val Thr Gly Gly Glu Leu Phe Glu Asp Ile Val Ala Arg
 95 100 105
 Glu Tyr Tyr Ser Glu Ala Asp Ala Ser His Cys Ile Gln Gln Ile
 110 115 120
 Leu Glu Ala Val Leu His Cys His Gln Met Gly Val Val His Arg
 125 130 135
 Asp Leu Lys Pro Glu Asn Leu Leu Leu Ala Ser Lys Cys Lys Gly
 140 145 150
 Ala Ala Val Lys Leu Ala Asp Phe Gly Leu Ala Ile Glu Val Gln
 155 160 165
 Gly Asp Gln Gln Ala Trp Phe Gly Phe Ala Gly Thr Pro Gly Tyr
 170 175 180
 Leu Ser Pro Glu Val Leu Arg Lys Glu Ala Tyr Gly Lys Pro Val
 185 190 195
 Asp Ile Trp Ala Cys Gly Val Ile Leu Tyr Ile Leu Leu Val Gly
 200 205 210
 Tyr Pro Pro Phe Trp Asp Glu Asp Gln His Lys Leu Tyr Gln Gln
 215 220 225
 Ile Lys Ala Gly Ala Tyr Asp Phe Pro Ser Pro Glu Trp Asp Thr
 230 235 240
 Val Thr Pro Glu Ala Lys Asn Leu Ile Asn Gln Met Leu Thr Ile
 245 250 255
 Asn Pro Ala Lys Arg Ile Thr Ala His Glu Ala Leu Lys His Pro
 260 265 270
 Trp Val Cys Gln Arg Ser Thr Val Ala Ser Met Met His Arg Gln
 275 280 285
 Glu Thr Val Glu Cys Leu Lys Lys Phe Asn Ala Arg Arg Lys Leu
 290 295 300
 Lys Gly Ala Ile Leu Thr Thr Met Leu Ala Thr Arg Asn Phe Ser
 305 310 315
 Ala Lys Ser Leu Leu Asn Lys Lys Ala Asp Gly Val Lys Pro Gln
 320 325 330
 Thr Asn Ser Thr Lys Asn Ser Ala Ala Ala Thr Ser Pro Lys Gly
 335 340 345

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| Thr | Leu | Pro | Pro | Ala | Ala | Leu | Glu | Pro | Gln | Thr | Thr | Val | Ile | His | | | |
| | | | | 350 | | | | | 355 | | | | | 360 | | | |
| Asn | Pro | Val | Asp | Gly | Ile | Lys | Glu | Ser | Ser | Asp | Ser | Ala | Asn | Thr | | | |
| | | | | 365 | | | | | 370 | | | | | 375 | | | |
| Thr | Ile | Glu | Asp | Glu | Asp | Ala | Lys | Ala | Pro | Arg | Val | Pro | Asp | Ile | | | |
| | | | | 380 | | | | | 385 | | | | | 390 | | | |
| Leu | Ser | Ser | Val | Arg | Arg | Gly | Ser | Gly | Ala | Pro | Glu | Ala | Glu | Gly | | | |
| | | | | 395 | | | | | 400 | | | | | 405 | | | |
| Pro | Leu | Pro | Cys | Pro | Ser | Pro | Ala | Pro | Phe | Gly | Pro | Leu | Pro | Ala | | | |
| | | | | 410 | | | | | 415 | | | | | 420 | | | |
| Pro | Ser | Pro | Arg | Ile | Ser | Asp | Ile | Leu | Asn | Ser | Val | Arg | Arg | Gly | | | |
| | | | | 425 | | | | | 430 | | | | | 435 | | | |
| Ser | Gly | Thr | Pro | Glu | Ala | Glu | Gly | Pro | Leu | Ser | Ala | Gly | Pro | Pro | | | |
| | | | | 440 | | | | | 445 | | | | | 450 | | | |
| Pro | Cys | Leu | Ser | Pro | Ala | Leu | Leu | Gly | Pro | Leu | Ser | Ser | Pro | Ser | | | |
| | | | | 455 | | | | | 460 | | | | | 465 | | | |
| Pro | Arg | Ile | Ser | Asp | Ile | Leu | Asn | Ser | Val | Arg | Arg | Gly | Ser | Gly | | | |
| | | | | 470 | | | | | 475 | | | | | 480 | | | |
| Thr | Pro | Glu | Ala | Lys | Gly | Pro | Ser | Pro | Val | Gly | Pro | Pro | Pro | Cys | | | |
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Pro | Ser | Pro | Thr | Ile | Pro | Gly | Pro | Leu | Pro | Thr | Pro | Ser | Arg | Lys | | | |
| | | | | 500 | | | | | 505 | | | | | 510 | | | |
| Gln | Glu | Ile | Ile | Lys | Thr | Thr | Glu | Gln | Leu | Ile | Glu | Ala | Val | Asn | | | |
| | | | | 515 | | | | | 520 | | | | | 525 | | | |
| Asn | Gly | Asp | Phe | Glu | Ala | Tyr | Ala | Lys | Ile | Cys | Asp | Pro | Gly | Leu | | | |
| | | | | 530 | | | | | 535 | | | | | 540 | | | |
| Thr | Ser | Phe | Glu | Pro | Glu | Ala | Leu | Gly | Asn | Leu | Val | Glu | Gly | Met | | | |
| | | | | 545 | | | | | 550 | | | | | 555 | | | |
| Asp | Phe | His | Arg | Phe | Tyr | Phe | Glu | Asn | Leu | Leu | Ala | Lys | Asn | Ser | | | |
| | | | | 560 | | | | | 565 | | | | | 570 | | | |
| Lys | Pro | Ile | His | Thr | Thr | Ile | Leu | Asn | Pro | His | Val | His | Val | Ile | | | |
| | | | | 575 | | | | | 580 | | | | | 585 | | | |
| Gly | Glu | Asp | Ala | Ala | Cys | Ile | Ala | Tyr | Ile | Arg | Leu | Thr | Gln | Tyr | | | |
| | | | | 590 | | | | | 595 | | | | | 600 | | | |
| Ile | Asp | Gly | Gln | Gly | Arg | Pro | Arg | Thr | Ser | Gln | Ser | Glu | Glu | Thr | | | |
| | | | | 605 | | | | | 610 | | | | | 615 | | | |
| Arg | Val | Trp | His | Arg | Arg | Asp | Gly | Lys | Trp | Gln | Asn | Val | His | Phe | | | |
| | | | | 620 | | | | | 625 | | | | | 630 | | | |
| His | Cys | Ser | Gly | Ala | Pro | Val | Ala | Pro | Leu | Gln | | | | | | | |
| | | | | 635 | | | | | 640 | | | | | | | | |

<210> 24

<211> 588

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 067967

<400> 24

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| Met | Gly | Gly | Thr | Ala | Arg | Gly | Pro | Gly | Arg | Lys | Asp | Ala | Gly | Pro | | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| Pro | Gly | Ala | Gly | Leu | Pro | Pro | Gln | Gln | Arg | Arg | Leu | Gly | Asp | Gly | | | |
| | | | | 20 | | | | 25 | | | | | 30 | | | | |
| Val | Tyr | Asp | Thr | Phe | Met | Met | Ile | Asp | Glu | Thr | Lys | Cys | Pro | Pro | | | |

| | | | | | |
|-----------------|---------------------|---------------------|-----|--|-----|
| | 35 | | 40 | | 45 |
| Cys Ser Asn Val | Leu Cys Asn Pro Ser | Glu Pro Pro Ser Pro | Arg | | |
| | 50 | | 55 | | 60 |
| Arg Leu Asn Met | Thr Thr Glu Gln Phe | Thr Gly Asp His Thr | Gln | | |
| | 65 | | 70 | | 75 |
| His Phe Leu Asp | Gly Gly Glu Met Lys | Val Glu Gln Leu Phe | Gln | | |
| | 80 | | 85 | | 90 |
| Glu Phe Gly Asn | Arg Lys Ser Asn Thr | Ile Gln Ser Asp Gly | Ile | | |
| | 95 | | 100 | | 105 |
| Ser Asp Ser Glu | Lys Cys Ser Pro Thr | Val Ser Gln Gly Lys | Ser | | |
| | 110 | | 115 | | 120 |
| Ser Asp Cys Leu | Asn Thr Val Lys Ser | Asn Ser Ser Ser Lys | Ala | | |
| | 125 | | 130 | | 135 |
| Pro Lys Val Val | Pro Leu Thr Pro Glu | Gln Ala Leu Lys Gln | Tyr | | |
| | 140 | | 145 | | 150 |
| Lys His His Leu | Thr Ala Tyr Glu Lys | Leu Glu Ile Ile Asn | Tyr | | |
| | 155 | | 160 | | 165 |
| Pro Glu Ile Tyr | Phe Val Gly Pro Asn | Ala Lys Lys Arg His | Gly | | |
| | 170 | | 175 | | 180 |
| Val Ile Gly Gly | Pro Asn Asn Gly Gly | Tyr Asp Asp Ala Asp | Gly | | |
| | 185 | | 190 | | 195 |
| Ala Tyr Ile His | Val Pro Arg Asp His | Leu Ala Tyr Arg Tyr | Glu | | |
| | 200 | | 205 | | 210 |
| Val Leu Lys Ile | Ile Gly Lys Gly Ser | Phe Gly Gln Val Ala | Arg | | |
| | 215 | | 220 | | 225 |
| Val Tyr Asp His | Lys Leu Arg Gln Tyr | Val Ala Leu Lys Met | Val | | |
| | 230 | | 235 | | 240 |
| Arg Asn Glu Lys | Arg Phe His Arg Gln | Ala Ala Glu Glu Ile | Arg | | |
| | 245 | | 250 | | 255 |
| Ile Leu Glu His | Leu Lys Lys Gln Asp | Lys Thr Gly Ser Met | Asn | | |
| | 260 | | 265 | | 270 |
| Val Ile His Met | Leu Glu Ser Phe Thr | Phe Arg Asn His Val | Cys | | |
| | 275 | | 280 | | 285 |
| Met Ala Phe Glu | Leu Leu Ser Ile Asp | Leu Tyr Glu Leu Ile | Lys | | |
| | 290 | | 295 | | 300 |
| Lys Asn Lys Phe | Gln Gly Phe Ser Val | Gln Leu Val Arg Lys | Phe | | |
| | 305 | | 310 | | 315 |
| Ala Gln Ser Ile | Leu Gln Ser Leu Asp | Ala Leu His Lys Asn | Lys | | |
| | 320 | | 325 | | 330 |
| Ile Ile His Cys | Asp Leu Lys Pro Glu | Asn Ile Leu Leu Lys | His | | |
| | 335 | | 340 | | 345 |
| His Gly Arg Ser | Ser Thr Lys Val Ile | Asp Phe Gly Ser Ser | Cys | | |
| | 350 | | 355 | | 360 |
| Phe Glu Tyr Gln | Lys Leu Tyr Thr Tyr | Ile Gln Ser Arg Phe | Tyr | | |
| | 365 | | 370 | | 375 |
| Arg Ala Pro Glu | Ile Ile Leu Gly Ser | Arg Tyr Ser Thr Pro | Ile | | |
| | 380 | | 385 | | 390 |
| Asp Ile Trp Ser | Phe Gly Cys Ile Leu | Ala Glu Leu Leu Thr | Gly | | |
| | 395 | | 400 | | 405 |
| Gln Pro Leu Phe | Pro Gly Glu Asp Glu | Gly Asp Gln Leu Ala | Cys | | |
| | 410 | | 415 | | 420 |
| Met Met Glu Leu | Leu Gly Met Pro Pro | Pro Lys Leu Leu Glu | Gln | | |
| | 425 | | 430 | | 435 |
| Ser Lys Arg Ala | Lys Tyr Phe Ile Asn | Ser Lys Gly Ile Pro | Arg | | |
| | 440 | | 445 | | 450 |
| Tyr Cys Ser Val | Thr Thr Gln Ala Asp | Gly Arg Val Val Leu | Val | | |

| | | | | | |
|-----------------|---|-------------------------|-----|--|-----|
| | 455 | | 460 | | 465 |
| Gly Gly Arg Ser | Arg Arg Gly Lys Lys | Arg Gly Pro Pro Gly Ser | | | |
| | 470 | | 475 | | 480 |
| Lys Asp Trp Gly | Thr Ala Leu Lys Gly Cys Asp Asp Tyr Leu Phe | | | | |
| | 485 | | 490 | | 495 |
| Ile Glu Phe Leu | Lys Arg Cys Leu His Trp Asp Pro Ser Ala Arg | | | | |
| | 500 | | 505 | | 510 |
| Leu Thr Pro Ala | Gln Ala Leu Arg His Pro Trp Ile Ser Lys Ser | | | | |
| | 515 | | 520 | | 525 |
| Val Pro Arg Pro | Leu Thr Thr Ile Asp Lys Val Ser Gly Lys Arg | | | | |
| | 530 | | 535 | | 540 |
| Val Val Asn Pro | Ala Ser Ala Phe Gln Gly Leu Gly Ser Lys Leu | | | | |
| | 545 | | 550 | | 555 |
| Pro Pro Val Val | Gly Ile Ala Asn Lys Leu Lys Ala Asn Leu Met | | | | |
| | 560 | | 565 | | 570 |
| Ser Glu Thr Asn | Gly Ser Ile Pro Leu Cys Ser Val Leu Pro Lys | | | | |
| | 575 | | 580 | | 585 |
| Leu Ile Ser | | | | | |

<210> 25

<211> 389

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 346275

<400> 25

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| Met Ser Asp Val Cys Ser Ser Gln Arg Ala Glu His Glu His Leu | | |
| 1 | 5 | 10 |
| Pro Gly Leu Val Pro Pro Pro Ser Gly Met Gly Val Arg Lys Gly | | |
| | 20 | 25 |
| Ser Ser Pro Leu Lys Ser His Pro Cys Arg Glu Lys Ser Val Ser | | |
| | 35 | 40 |
| Asn Arg Arg Ser Gly Lys Thr Ile Val Arg Ser Ala Val Glu Glu | | |
| | 50 | 55 |
| Val Arg Thr Ala Gly Leu Phe Arg Ser Gly Phe Ser Glu Glu Lys | | |
| | 65 | 70 |
| Ala Thr Gly Lys Leu Phe Ala Val Lys Cys Ile Pro Lys Lys Ala | | |
| | 80 | 85 |
| Leu Lys Gly Lys Glu Ser Ser Ile Glu Asn Glu Ile Ala Val Leu | | |
| | 95 | 100 |
| Arg Lys Ile Lys His Glu Asn Ile Val Ala Leu Glu Asp Ile Tyr | | |
| | 110 | 115 |
| Glu Ser Pro Asn His Leu Tyr Leu Val Met Gln Leu Val Ser Gly | | |
| | 125 | 130 |
| Gly Glu Leu Phe Asp Arg Ile Val Glu Lys Gly Phe Tyr Thr Glu | | |
| | 140 | 145 |
| Lys Asp Ala Ser Thr Leu Ile Arg Gln Val Leu Asp Ala Val Tyr | | |
| | 155 | 160 |
| Tyr Leu His Arg Met Gly Ile Val His Arg Asp Leu Lys Pro Glu | | |
| | 170 | 175 |
| Asn Leu Leu Tyr Tyr Ser Gln Asp Glu Glu Ser Lys Ile Met Ile | | |
| | 185 | 190 |

| | | |
|---|-----|-----|
| Ser Asp Phe Gly Leu Ser Lys Met Glu Gly Lys Gly Asp Val Met | | |
| 200 | 205 | 210 |
| Ser Thr Ala Cys Gly Thr Pro Gly Tyr Val Ala Pro Glu Val Leu | | |
| 215 | 220 | 225 |
| Ala Gln Lys Pro Tyr Ser Lys Ala Val Asp Cys Trp Ser Ile Gly | | |
| 230 | 235 | 240 |
| Val Ile Ala Tyr Ile Leu Leu Cys Gly Tyr Pro Pro Phe Tyr Asp | | |
| 245 | 250 | 255 |
| Glu Asn Asp Ser Lys Leu Phe Glu Gln Ile Leu Lys Ala Glu Tyr | | |
| 260 | 265 | 270 |
| Glu Phe Asp Ser Pro Tyr Trp Asp Asp Ile Ser Asp Ser Ala Lys | | |
| 275 | 280 | 285 |
| Asp Phe Ile Arg Asn Leu Met Glu Lys Asp Pro Asn Lys Arg Tyr | | |
| 290 | 295 | 300 |
| Thr Cys Glu Gln Ala Ala Arg His Pro Trp Ile Ala Gly Asp Thr | | |
| 305 | 310 | 315 |
| Ala Leu Asn Lys Asn Ile His Glu Ser Val Ser Ala Gln Ile Arg | | |
| 320 | 325 | 330 |
| Lys Asn Phe Ala Lys Ser Lys Trp Arg Gln Ala Phe Asn Ala Thr | | |
| 335 | 340 | 345 |
| Ala Val Val Arg His Met Arg Lys Leu His Leu Gly Ser Ser Leu | | |
| 350 | 355 | 360 |
| Asp Ser Ser Asn Ala Ser Val Ser Ser Ser Leu Ser Leu Ala Ser | | |
| 365 | 370 | 375 |
| Gln Lys Asp Cys Ala Tyr Val Ala Lys Pro Glu Ser Leu Ser | | |
| 380 | 385 | |

<210> 26

<211> 343

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 283746

<400> 26

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| Met Ile Gly Glu Glu Ala Met Ile Asn Tyr Glu Asn Phe Leu Lys | | |
| 1 | 5 | 10 |
| Val Gly Glu Lys Ala Gly Ala Lys Cys Lys Gln Phe Phe Thr Ala | | |
| 20 | 25 | 30 |
| Lys Val Phe Ala Lys Leu Leu His Thr Asp Ser Tyr Gly Arg Ile | | |
| 35 | 40 | 45 |
| Ser Ile Met Gln Phe Phe Asn Tyr Val Met Arg Lys Val Trp Leu | | |
| 50 | 55 | 60 |
| His Gln Thr Arg Ile Gly Leu Ser Leu Tyr Asp Val Ala Gly Gln | | |
| 65 | 70 | 75 |
| Gly Tyr Leu Arg Glu Ser Asp Leu Glu Asn Tyr Ile Leu Glu Leu | | |
| 80 | 85 | 90 |
| Ile Pro Thr Leu Pro Gln Leu Asp Gly Leu Glu Lys Ser Phe Tyr | | |
| 95 | 100 | 105 |
| Ser Phe Tyr Val Cys Thr Ala Val Arg Lys Phe Phe Phe Phe Leu | | |
| 110 | 115 | 120 |
| Asp Pro Leu Arg Thr Gly Lys Ile Lys Ile Gln Asp Ile Leu Ala | | |
| 125 | 130 | 135 |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ser | Phe | Leu | Asp | Asp | Leu | Leu | Glu | Leu | Arg | Asp | Glu | Glu | Leu |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Ser | Lys | Glu | Ser | Gln | Glu | Thr | Asn | Trp | Phe | Ser | Ala | Pro | Ser | Ala |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Leu | Arg | Val | Tyr | Gly | Gln | Tyr | Leu | Asn | Leu | Asp | Lys | Asp | His | Asn |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Gly | Met | Leu | Ser | Lys | Glu | Glu | Leu | Ser | Arg | Tyr | Gly | Thr | Ala | Thr |
| | | | | 185 | | | | | 190 | | | | | 195 |
| Met | Thr | Asn | Val | Phe | Leu | Asp | Arg | Val | Phe | Gln | Glu | Cys | Leu | Thr |
| | | | | 200 | | | | | 205 | | | | | 210 |
| Tyr | Asp | Gly | Glu | Met | Asp | Tyr | Lys | Thr | Tyr | Leu | Asp | Phe | Val | Leu |
| | | | | 215 | | | | | 220 | | | | | 225 |
| Ala | Leu | Glu | Asn | Arg | Lys | Glu | Pro | Ala | Ala | Leu | Gln | Tyr | Ile | Phe |
| | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Leu | Leu | Asp | Ile | Glu | Asn | Lys | Gly | Tyr | Leu | Asn | Val | Phe | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Leu | Asn | Tyr | Phe | Phe | Arg | Ala | Ile | Gln | Glu | Leu | Met | Lys | Ile | His |
| | | | | 260 | | | | | 265 | | | | | 270 |
| Gly | Gln | Asp | Pro | Val | Ser | Phe | Gln | Asp | Val | Lys | Asp | Glu | Ile | Phe |
| | | | | 275 | | | | | 280 | | | | | 285 |
| Asp | Met | Val | Lys | Pro | Lys | Asp | Pro | Leu | Lys | Ile | Ser | Leu | Gln | Asp |
| | | | | 290 | | | | | 295 | | | | | 300 |
| Leu | Ile | Asn | Ser | Asn | Gln | Gly | Asp | Thr | Val | Thr | Thr | Ile | Leu | Ile |
| | | | | 305 | | | | | 310 | | | | | 315 |
| Asp | Leu | Asn | Gly | Phe | Trp | Thr | Tyr | Glu | Asn | Arg | Glu | Ala | Leu | Val |
| | | | | 320 | | | | | 325 | | | | | 330 |
| Ala | Asn | Asp | Ser | Glu | Asn | Ser | Ala | Asp | Leu | Asp | Asp | Thr | | |
| | | | | 335 | | | | | 340 | | | | | |

<210> 27

<211> 184

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2696537

<400> 27

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Asn | Gly | Met | Asn | Lys | Ile | Leu | Pro | Gly | Leu | Tyr | Ile | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Asn | Phe | Lys | Asp | Ala | Arg | Asp | Ala | Glu | Gln | Leu | Ser | Lys | Asn | Lys |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Val | Thr | His | Ile | Leu | Ser | Val | His | Asp | Ser | Ala | Arg | Pro | Met | Leu |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Glu | Gly | Val | Lys | Tyr | Leu | Cys | Ile | Pro | Ala | Ala | Asp | Ser | Pro | Ser |
| | | | | 50 | | | | | 55 | | | | | 60 |
| Gln | Asn | Leu | Thr | Arg | His | Phe | Lys | Glu | Ser | Ile | Lys | Phe | Ile | His |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Glu | Cys | Arg | Leu | Arg | Gly | Glu | Ser | Cys | Leu | Val | His | Cys | Leu | Ala |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Gly | Val | Ser | Arg | Ser | Val | Thr | Leu | Val | Ile | Ala | Tyr | Ile | Met | Thr |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Val | Thr | Asp | Phe | Gly | Trp | Glu | Asp | Ala | Leu | His | Thr | Val | Arg | Ala |
| | | | | 110 | | | | | 115 | | | | | 120 |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Ser | Cys | Ala | Asn | Pro | Asn | Val | Gly | Phe | Gln | Arg | Gln | Leu |
| | | | | 125 | | | | | 130 | | | | | 135 |
| Gln | Glu | Phe | Glu | Lys | His | Glu | Val | His | Gln | Tyr | Arg | Gln | Trp | Leu |
| | | | | 140 | | | | | 145 | | | | | 150 |
| Lys | Glu | Glu | Tyr | Gly | Glu | Ser | Pro | Leu | Gln | Asp | Ala | Glu | Glu | Ala |
| | | | | 155 | | | | | 160 | | | | | 165 |
| Lys | Asn | Ile | Leu | Ala | Ala | Pro | Gly | Ile | Leu | Lys | Phe | Trp | Ala | Phe |
| | | | | 170 | | | | | 175 | | | | | 180 |
| Leu | Arg | Arg | Leu | | | | | | | | | | | |

<210> 29

<211> 118

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 619292

<400> 29

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Leu | Ile | Asp | Gly | Met | His | Thr | His | Leu | Gly | Ala | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Leu | Tyr | Ile | Gln | Thr | Leu | Leu | Pro | Cly | Ser | Pro | Ala | Ala | Ala | Asp |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Gly | Arg | Leu | Ser | Leu | Gly | Asp | Arg | Ile | Leu | Glu | Val | Asn | Gly | Ser |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Ser | Leu | Leu | Gly | Leu | Gly | Tyr | Leu | Arg | Ala | Val | Asp | Leu | Ile | Arg |
| | | | | 50 | | | | | 55 | | | | | 60 |
| His | Gly | Gly | Lys | Lys | Met | Arg | Phe | Leu | Val | Ala | Lys | Ser | Asp | Val |
| | | | | 65 | | | | | 70 | | | | | 75 |
| Gly | Lys | Gln | Pro | Arg | Ser | Ile | Ser | Ala | Arg | Pro | Leu | Ser | Arg | |
| | | | | 80 | | | | | 85 | | | | | 90 |
| Gly | Ala | Ala | Arg | Thr | Pro | Pro | Gln | Ala | Arg | His | Pro | Val | Pro | Pro |
| | | | | 95 | | | | | 100 | | | | | 105 |
| Gly | Asp | Thr | Gly | Leu | Pro | Pro | Ala | Phe | Val | Pro | Val | Leu | | |
| | | | | 110 | | | | | 115 | | | | | |

<210> 30

<211> 356

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2054049

<400> 30

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| Met | Val | Gly | Val | Ser | Gly | Lys | Arg | Ser | Lys | Glu | Asp | Glu | Lys | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Leu | Gln | Ala | Ile | Met | Asp | Ser | Asn | Ala | Gln | Ser | His | Lys | Ile | Phe |
| | | | | 20 | | | | | 25 | | | | | 30 |
| Ile | Phe | Asp | Ala | Arg | Pro | Ser | Val | Asn | Ala | Val | Ala | Asn | Lys | Ala |
| | | | | 35 | | | | | 40 | | | | | 45 |
| Lys | Gly | Gly | Gly | Tyr | Glu | Ser | Glu | Asp | Ala | Tyr | Gln | Asn | Ala | Glu |

| | | | | | |
|-----------------|---|-------------------------|-----|--|-----|
| | 50 | | 55 | | 60 |
| Leu Val Phe Leu | Asp Ile His Asn Ile | His Val Met Arg Glu Ser | | | |
| | 65 | | 70 | | 75 |
| Leu Arg Lys Leu | Lys Glu Ile Val Tyr Pro Asn Ile Glu Glu Thr | | | | |
| | 80 | | 85 | | 90 |
| His Trp Leu Ser | Asn Leu Glu Ser Thr His Trp Leu Glu His Ile | | | | |
| | 95 | | 100 | | 105 |
| Lys Leu Ile Leu | Ala Gly Ala Leu Arg Ile Ala Asp Lys Val Glu | | | | |
| | 110 | | 115 | | 120 |
| Ser Gly Lys Thr | Ser Val Val Val His Cys Ser Asp Gly Trp Asp | | | | |
| | 125 | | 130 | | 135 |
| Arg Thr Ala Gln | Leu Thr Ser Leu Ala Met Leu Met Leu Asp Gly | | | | |
| | 140 | | 145 | | 150 |
| Tyr Tyr Arg Thr | Ile Arg Gly Phe Glu Val Leu Val Glu Lys Glu | | | | |
| | 155 | | 160 | | 165 |
| Trp Leu Ser Phe | Gly His Arg Phe Gln Leu Arg Val Gly His Gly | | | | |
| | 170 | | 175 | | 180 |
| Asp Lys Asn His | Ala Asp Ala Asp Arg Ser Pro Val Phe Leu Gln | | | | |
| | 185 | | 190 | | 195 |
| Phe Ile Asp Cys | Val Trp Gln Met Thr Arg Gln Phe Pro Thr Ala | | | | |
| | 200 | | 205 | | 210 |
| Phe Glu Phe Asn | Glu Tyr Phe Leu Ile Thr Ile Leu Asp His Leu | | | | |
| | 215 | | 220 | | 225 |
| Tyr Ser Cys Leu | Phe Gly Thr Phe Leu Cys Asn Ser Glu Gln Gln | | | | |
| | 230 | | 235 | | 240 |
| Arg Gly Lys Glu | Asn Leu Pro Lys Arg Thr Val Ser Leu Trp Ser | | | | |
| | 245 | | 250 | | 255 |
| Tyr Ile Asn Ser | Gln Leu Glu Asp Phe Thr Asn Pro Leu Tyr Gly | | | | |
| | 260 | | 265 | | 270 |
| Ser Tyr Ser Asn | His Val Leu Tyr Pro Val Ala Ser Met Arg His | | | | |
| | 275 | | 280 | | 285 |
| Leu Glu Leu Trp | Val Gly Tyr Tyr Ile Arg Trp Asn Pro Arg Met | | | | |
| | 290 | | 295 | | 300 |
| Lys Pro Gln Glu | Pro Ile His Asn Arg Tyr Lys Glu Leu Leu Ala | | | | |
| | 305 | | 310 | | 315 |
| Lys Arg Ala Glu | Leu Gln Lys Lys Val Glu Glu Leu Gln Arg Glu | | | | |
| | 320 | | 325 | | 330 |
| Ile Ser Asn Arg | Ser Thr Ser Ser Ser Glu Arg Ala Ser Ser Pro | | | | |
| | 335 | | 340 | | 345 |
| Ala Gln Cys Val | Thr Pro Val Gln Thr Val Val | | | | |
| | 350 | | 355 | | |

<210> 31

<211> 453

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 234391)

<400> 31

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| 1 | 5 | 10 15 |
| Phe Gln Trp Cys | Phe Ser Gln Val Lys Gly Ala | Ile Asp Glu Asp |

| | | | | | |
|---------------------|-----------------|---------------------|-----|--|-----|
| | 20 | | 25 | | 30 |
| Val Ala Glu Ala Asp | Ile Ile Ser Thr | Val Glu Phe Asn Tyr | Ser | | |
| | 35 | | 40 | | 45 |
| Gly Asp Leu Leu Ala | Thr Gly Asp Lys | Gly Gly Arg Val Val | Ile | | |
| | 50 | | 55 | | 60 |
| Phe Gln Arg Glu Gln | Glu Asn Lys Ser | Arg Pro His Ser Arg | Gly | | |
| | 65 | | 70 | | 75 |
| Glu Tyr Asn Val Tyr | Ser Thr Phe Gln | Ser His Glu Pro Glu | Phe | | |
| | 80 | | 85 | | 90 |
| Asp Tyr Leu Lys Ser | Leu Glu Ile Glu | Glu Lys Ile Asn Lys | Ile | | |
| | 95 | | 100 | | 105 |
| Arg Trp Leu Pro Gln | Gln Asn Ala Ala | His Phe Leu Leu Ser | Thr | | |
| | 110 | | 115 | | 120 |
| Asn Asp Lys Thr Ile | Lys Leu Trp Lys | Ile Ser Glu Arg Asp | Lys | | |
| | 125 | | 130 | | 135 |
| Arg Ala Glu Gly Tyr | Asn Leu Lys Asp | Glu Asp Gly Arg Leu | Arg | | |
| | 140 | | 145 | | 150 |
| Asp Pro Phe Arg Ile | Thr Ala Leu Arg | Val Pro Ile Leu Lys | Pro | | |
| | 155 | | 160 | | 165 |
| Met Asp Leu Met Val | Glu Ala Ser Pro | Arg Arg Ile Phe Ala | Asn | | |
| | 170 | | 175 | | 180 |
| Ala His Thr Tyr His | Ile Asn Ser Ile | Ser Val Asn Ser Asp | His | | |
| | 185 | | 190 | | 195 |
| Glu Thr Tyr Leu Ser | Ala Asp Asp Leu | Arg Ile Asn Leu Trp | His | | |
| | 200 | | 205 | | 210 |
| Leu Glu Ile Thr Asp | Arg Ser Phe Asn | Ile Val Asp Ile Lys | Pro | | |
| | 215 | | 220 | | 225 |
| Ala Asn Met Glu Glu | Leu Thr Glu Val | Ile Thr Ala Ala Glu | Phe | | |
| | 230 | | 235 | | 240 |
| His Pro His Gln Cys | Asn Val Phe Val | Tyr Ser Ser Ser Lys | Gly | | |
| | 245 | | 250 | | 255 |
| Thr Ile Arg Leu Cys | Asp Met Arg Ser | Ser Ala Leu Cys Asp | Arg | | |
| | 260 | | 265 | | 270 |
| His Ser Lys Phe Phe | Glu Glu Pro Glu | Asp Pro Ser Ser Arg | Ser | | |
| | 275 | | 280 | | 285 |
| Phe Phe Ser Glu Ile | Ile Ser Ser Ile | Ser Asp Val Lys Phe | Ser | | |
| | 290 | | 295 | | 300 |
| His Ser Gly Arg Tyr | Met Met Thr Arg | Asp Tyr Leu Ser Val | Lys | | |
| | 305 | | 310 | | 315 |
| Val Trp Asp Leu Asn | Met Glu Ser Arg | Pro Val Glu Thr His | Gln | | |
| | 320 | | 325 | | 330 |
| Val His Glu Tyr Leu | Arg Ser Lys Leu | Cys Ser Leu Tyr Glu | Asn | | |
| | 335 | | 340 | | 345 |
| Asp Cys Ile Phe Asp | Lys Phe Glu Cys | Cys Trp Asn Gly Ser | Asp | | |
| | 350 | | 355 | | 360 |
| Ser Ala Ile Met Thr | Gly Ser Tyr Asn | Asn Phe Phe Arg Met | Phe | | |
| | 365 | | 370 | | 375 |
| Asp Arg Asp Thr Arg | Arg Asp Val Thr | Leu Glu Ala Ser Arg | Glu | | |
| | 380 | | 385 | | 390 |
| Ser Ser Lys Pro Arg | Ala Ser Leu Lys | Pro Arg Lys Val Cys | Thr | | |
| | 395 | | 400 | | 405 |
| Gly Gly Lys Arg Arg | Lys Asp Glu Ile | Ser Val Asp Ser Leu | Asp | | |
| | 410 | | 415 | | 420 |
| Phe Asn Lys Lys Ile | Leu His Thr Ala | Trp His Pro Val Asp | Asn | | |
| | 425 | | 430 | | 435 |
| Val Ile Ala Val Ala | Ala Thr Asn Asn | Leu Tyr Ile Phe Gln | Asp | | |

440

445

450

Lys Ile Asn

<110> 32

<111> 1321

<112> DNA

<113> Homo sapiens

<120>

<121> misc_feature

<123> Incyte Clone Number: 132240

<400> 32

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cagattgcca agaaaagacc tcaccaaaaag gtgtcgagaa cctgctgta caagagagta 180
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gaatgaacat gacttcttta gatgcaatgg atatttcgtg tgcctacagt gggtcatatc 360
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<110> 33

<111> 542

<112> DNA

<113> Homo sapiens

<120>

<121> misc_feature

<123> Incyte Clone Number: 2130116

<400> 33

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ggcgacgcgc gcgctcaccg tcaagtatga ccggcgaggag ctgcagcggc ggctggacgt 180
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<210> 34

<211> 2778

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 2548, 2557, 2645, 2722, 2557, 2762, 2765

<223> Incyte Clone Number: 2197671

<400> 34

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gcttttttaca aaactagaga aaattgggaa gggcctcttt ggagaggtgt tcaaaggcat 180
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aaccaaatat tatggatcct atctgaagga tacaaaatta tggataataa tggaatatcl 360
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cagagacatt aaagcggcca acgtcctgct gtctgagcat ggcgaggtga agctggcgga 540
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cccattctgg atggcacccg aggtcatcaa acagtcggcc tatgactcga aggcagacat 660
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gcaccccatg aaagttttat tcttcattcc aaagaacaaac ccaccgacgt tggaggaaa 780
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<210> 35

<211> 1424

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2594943

<400> 35

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<210> 36

<211> 1339

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 1513871

<400> 36

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ctcctgttca gtgccccgca ctgagaccat tgaagaatcc ttggtgaat tcacggagca 240
attcaaccag ctccacaacc ggcggaatga gaacttgag ctcggtcctc ttggcagaga 300

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<210> 37

<211> 2024

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 156108

<400> 37

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<210> 33

<211> 1361

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2883243

<400> 33

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<223> Incyte Clone Number: 3173355

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<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 5116906

<400> 40

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<211> 2059

<212> DNA

<213> Homo sapiens

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<223> Incyte Clone Number: 940589

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<211> 1023

<212> DNA

<213> Homo sapiens

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<221> misc_feature

<223> Incyte Clone Number: 304421

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<211> 4416

<212> DNA

<213> Homo sapiens

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<223> Incyte Clone Number: 1213802

<400> 43

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<211> 2063

<212> DNA

<213> Homo sapiens

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<223> Incyte Clone Number: 1378134

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<223> Incyte Clone Number: 1490070

<400> 45

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<211> 2534

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<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 1997814

<400> 46

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2534

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<211> 3786

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2299715

<400> 47

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<211> 1182

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<213> Homo sapiens

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<223> Incyte Clone Number: 209854

<400> 48

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<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 1384286

<400> 49

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<213> Homo sapiens

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<210> 51

<211> 2145

<212> DNA

<213> Homo sapiens

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<223> Incyte Clone Number: 2098635

<400> 51

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<211> 1454

<212> DNA

<213> Homo sapiens

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<223> Incyte Clone Number: 2446646

<400> 52

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<410> 54

<411> 3125

<412> DNA

<413> Homo sapiens

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<221> misc_feature

<223> Incyte Clone Number: 2764911

<400> 53

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<210> 54

<211> 2110

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2013946

<400> 54

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<210> 55

<211> 2140

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 067967

<400> 55

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<210> 56

<211> 1723

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 346275

<400> 56

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<210> 57

<211> 1610

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 283746

<400> 57

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<210> 58

<211> 1290

<212> DNA

<213> Homo sapiens

<220>

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<223> Incyte Clone Number: 2696537

<400> 53

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<210> 59

<211> 2381

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 551178

<400> 59

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<210> 60

<211> 632

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 619292

<400> 60

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cctgggcgcc cccgggtctt acatccagac cctgctcccg ggcagccccc cagcggccga 180
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<310> 61

<311> 2347

<312> DNA

<313> Homo sapiens

<320>

<321> misc_feature

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<400> 61

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<210> 62

<211> 1737

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte Clone Number: 2842910

<400> 62

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